

## ABSTRACT

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ON BUYER-SUPPLIER TRUST AND  
COMMITMENT

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Morgan and Hunt's (1994) Key Mediating Variable (KMV) Model has been demonstrated to be a useful means of exploring relationships between organizations. The model includes such key relational constructs as trust, commitment, cooperation, communication, shared values, and uncertainty, which have been studied extensively in the extant supply chain and marketing literatures. However, at present no comprehensive test of buyer-supplier relationships has used the KMV Model as the basis for analysis. In addition, no multi-industry study has applied the KMV Model to investigate its usefulness in other industries. Finally, the applications of the KMV Model thus far have not included testing for its usefulness across national boundaries. The present study addresses all three of the gaps above. Using responses from U.S.-based purchasing professionals, the current study replicates the KMV Model within a new population and addresses the three gaps: First, by investigating the buyer-supplier relationship; second, by sampling respondents from three industries

(fabricated metal products; industrial machinery and equipment; and electronic and other electric equipment); and third, by collecting a sample with an internationally diverse supply base.

The findings suggest that the KMV Model remains valid for predicting levels of trust and commitment in buyer-supplier relationships across the three industries. In addition, the analyses suggest that the KMV Model is a reliable predictor for trust and commitment, as well as for their respective sources and outcomes, in differing cultures at the national level.

THE INFLUENCE OF NATIONAL CULTURE  
ON BUYER-SUPPLIER TRUST AND COMMITMENT

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## Chapter 1: Introduction

Businesses and their supply chains are becoming more global each day. Many factors have combined to make sourcing outside the home country more financially lucrative for the firm. However, this trend has occasionally been frustrated by the failure of undertakings and relationships with firms based in other countries. Such setbacks can be particularly upsetting when the financial benefits of a given buyer-supplier relationship should seem obvious to both parties. In many cases the realization of benefits from such relationships is dependent on the acknowledgement of differences between the cultures of the home countries of the firms involved. In fact, such differences may also influence the inception of the relationship itself.

A noticeable trend over the past two decades has been a shift from domestic sourcing toward purchasing from international suppliers. This trend is manifested not only in the percentage of inputs sourced overseas, but also in the number of different countries in which suppliers are located (Min and Galle 1991, Frear, Metcalf, and Alguire 1994). Many factors have enabled increased international sourcing, including the lowering of obstacles to trade. There are also considerations that make foreign sourcing attractive to buyers, including price, quality, and lack of domestic availability (Monczka and Giunipero 1984, Min and Galle 1991, Frear, Metcalf, and Alguire 1992, Birou and Fawcett 1993). As is the case with selling in international markets, opening supply channels to international sources is not always seen merely as an attractive option, but as a strategic necessity (Ellram 1991, Monczka and Trent 1992, Petersen, Frayer, and Scannell 2000).

As transactional relationships develop among buyers and international suppliers, a trend has been toward more stable, long-term arrangements. These relationships help to dampen some of the volatile aspects of sourcing internationally (Min and Galle 1991). However, the broadening of the scope of international purchasing coupled with the increasing depth and length of resultant buyer-supplier relationships has heightened the effect of intercultural differences among buyers and suppliers. These differences may have a particularly strong impact in the case of trust and commitment between buyers and suppliers, which have been demonstrated to be essential to the success of buyer-supplier relationships (Ganesan 1994, Morgan and Hunt 1994). Trust and commitment are theorized to have positive effects on channel relationships (Morgan and Hunt 1994), and indeed even on societies as a whole (Murphy 1999).

When occurring regularly and over a long period of time, buyer-supplier transactions can assume the characteristics of an exchange relationship. Such relationships, even between firms, may be based on behaviors described in terms commonly referring to interpersonal conditions such as trust and commitment. As when individuals interact with others from foreign countries, the differences in acculturation between firms based in different nations can present impediments to the formation of relationships, and the derivation of benefits from such interaction. However, an understanding of the differences between national cultures and how they are manifested in interfirm relationships can reduce friction.

The following section provides a background to the research, introducing the purpose and theoretical framework. The framework is based on two primary streams:

Morgan and Hunt's (1994) Key Mediating Variable Model of interorganizational relationships, which includes twelve constructs of interorganizational behavior centered around trust and commitment; and Hofstede's (2001) five dimensions of national culture: individualism-collectivism, long-term orientation, masculinity-femininity, uncertainty avoidance, and power distance. An abbreviated literature review follows, summarizing key sources studying the interactions of culture and buyer-supplier relationships. Finally, Table 1 is included as a reference to key concepts used throughout the piece.

### Research Background

Morgan and Hunt (1994) present a model (Figure 1) of interorganizational relationships based on trust and commitment, the Key Mediating Variable (or KMV) Model. The model is rooted in social or relational exchange theory. This theory is based on the premise that individuals form relationships based on mutual exchange to achieve benefits; with the passage of time and the conclusion of mutually beneficial exchanges, trust and commitment develop (Thibaut and Kelley 1959, Blau 1964). When applied to the interaction of businesses with their customers, corporate or individual, social exchange theory is the basis of relational marketing. In the context of relational marketing, the exchange between customer and vendor is viewed not merely at the level of the individual transaction, but in terms of relationships (Dwyer, Schurr, and Oh 1987, Morgan and Hunt 1994). In Morgan and Hunt's model, trust and commitment mediate the relationship between five antecedent variables (benefits, termination costs, communication, opportunism, and shared values), and five relationship outcome variables (propensity to leave, acquiescence, cooperation,

uncertainty, and functional conflict). The model further proposes no direct relationships between the antecedent and outcome variables, thus establishing commitment and trust as key mediators.

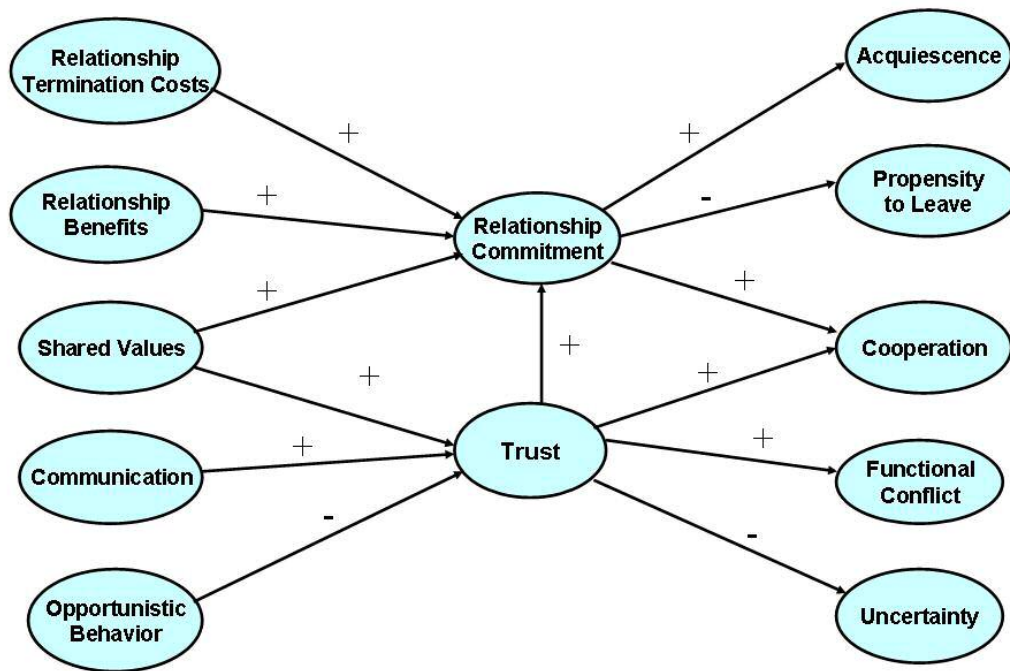


Figure 1: The Key Mediating Variable of Relationship Marketing (Source: Morgan and Hunt 1994)

This research seeks to build upon Morgan and Hunt's model by incorporating effects based on differences between cultures. Individuals in different cultures form bonds and view relationships in different ways. Behaviors and conditions that are viewed as beneficial in one culture may be perceived as neutral or even harmful in another. A model proposed in this research will investigate whether cultural distance has effects upon the relationships in the KMV Model. The intercultural framework is based on Hofstede's (2001) typology of dimensions of national culture. Hofstede's

dimensions have been demonstrated as substantiating cultural differences at the national level. For relational marketing, the model of Morgan and Hunt (1994) is adopted. Table 1 presents formal definitions of the terms discussed in the research, including the constructs in Morgan and Hunt's model. The differences in cultural characteristics between the buyer and supplier are one possible explanation as to why high or low levels of trust and commitment exist in international exchange relationships. In addition, the differences between cultures may either increase or diminish the benefits of exchange rooted in relationship commitment. For certain industries or products where the benefits of extended social exchange may outweigh those of sourcing through markets (as with goods of high complexity, goods only available from a small number of suppliers, and/or industries with high levels of specialization or innovation, which therefore entail a high volume of communication), differences among national cultures can play a key role in hastening and strengthening the creation of solid relationships between buyers and suppliers, at the firm as well as interpersonal level. Here the author proposes that differences between buyer and supplier in national culture as defined along the dimensions of Hofstede (2001) significantly affect the trust- and commitment-building processes, as well as the benefits, of a buyer-supplier relationship (as modeled by Morgan and Hunt 1994) that spans international borders. A major research question to be addressed here is: How do national culture differences influence the fostering of trust and commitment in transnational buyer-supplier relationships?

### Dimensions of National Culture

Intercultural variations influence the nature of interorganizational interactions. Cultural differences may create barriers in business relationships (Anderson and Weitz 1989, Hewett and Bearden 2001). Differences among cultures have also been cited as an important challenge to international sourcing (Min and Galle 1991, Birou and Fawcett 1993).

In his study of over 88,000 employees from over forty countries and regions of a multinational corporation based in the U.S., Hofstede (2001) finds variation among national cultures along four dimensions:

*Power distance*, which concerns the handling by a society of human inequalities of prestige, wealth, and power. A high index of power distance is found for a country where large inequalities exist.

*Uncertainty avoidance*, which denotes “the extent to which members of a culture feel threatened by uncertain or unknown situations.” A culture with a high index of uncertainty avoidance is highly rule-oriented, encourages employment stability, and strongly favors technological solutions.

*Individualism-Collectivism* describes the relationship between the individual and the collective organization or society. The index is called individualism, and a high value indicates that a given nation’s culture emphasizes, for example, the importance of employees’ personal time and freedom and challenge in the workplace (as opposed to training and the use of job skills).

*Masculinity-Femininity*, like individualism, is comprised of a two-pole continuum. Societies rated as more masculine attribute more importance to goals such as careers and money, while cultures rated more feminine rank social goals such as relationships, lending help to others, and the physical environment more highly.

These four dimensions have been validated in many studies (Søndergaard 1994).

Since the original study, the scope has been expanded to over fifty different countries and regions. In addition, a fifth independent dimension has been found and similarly validated since the publication of the above four dimensions (Hofstede 2001):

*Long-Term Orientation* refers to a culture's valuing persistence or perseverance over quick results. Societies with high Long-Term Orientation Indices, for example, favor the ordering of status in relationships; place a low value on leisure time; and emphasize the building of relationships and market position in business over "the bottom line."

Most commonly, individualism-collectivism has been used as the dimension associated with trust. Individualism-collectivism has been proposed as a direct influence on cooperation within multinational organizations (Chen, Chen, and Meindl 1998). Empirically, the individualism-collectivism dimension has been modeled as a moderating variable in the trust-cooperation relationship of marketing headquarters and subsidiaries (Hewett and Bearden 2001). Incorporation of multiple dimensions has been rarer, either conceptually or empirically (Søndergaard 1994, Doney, Cannon, and Mullen 1998, Nyaw and Ng 1994).

Without replication or usage of the indices associated with Hofstede's dimensions, other studies have nevertheless confirmed some aspects of Hofstede's findings. For example, Akaah (1990) found no significant differences among ethical attitudes in the "Anglosphere" countries of Australia, Canada, Great Britain, and the United States. Similarly, individualism, whether as operationalized by Hofstede (Nyaw and Ng 1994) or based on different theory such as the philosophy of utilitarianism (Wood et al. 1988), has been hypothesized as correlated with tolerance of certain unethical behaviors in the workplace. Schwartz (1994), with a sample encompassing data from 44 countries, like Hofstede also examines culture at the national level. He identifies seven categories of culture: conservatism, hierarchy, mastery, affective autonomy, intellectual autonomy, egalitarian commitment, and harmony. He finds positive correlations at the national level between harmony and



uncertainty avoidance; between egalitarian commitment, affective autonomy, and intellectual autonomy and individualism; and between mastery and masculinity. In addition, Schwartz finds a negative correlation between hierarchy and individualism.

### Power Distance

Hofstede (2001, p. xix) defines the *Power Distance* dimension as “the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed unequally” and is based on “the degree of human inequality that underlies the functioning of each particular society.” Inequalities in society take the forms of physical and intellectual characteristics; social status and prestige; wealth; power; and laws, rights, and rules. Two countervailing forces can be discerned in each society: one attempting to eliminate status inconsistencies among the areas mentioned above, and a counterforce attempting to maintain equality by offsetting rank in one of the areas against another. Writes Hofstede, “[t]he battle between the two forces . . . is one of the basic issues in any human society” (p. 80).

In organizations, inequalities are manifested most clearly in power distribution, which is formalized in organizational hierarchies. The supervisor-subordinate relationship bears resemblance to the fundamental relationships of parent-child and teacher-pupil. Comments Hofstede, “[a]s family and school environments differ strongly among cultures, we can expect to find the traces of these differences in the exercise of power in hierarchies” (82).

Hofstede operationalizes power distance as “a measure of the interpersonal power or influence of B [boss] and S [subordinate] as perceived by the less powerful of the two, S.” On a national level, culture defines the power distance level “at which

the tendency of the powerful to maintain or increase power distances and the tendency of the less powerful to reduce them will find their equilibrium” (pp. 83-84). For example, one questionnaire item measuring the power distance dimension queries the respondent on the frequency of employees being afraid to express disagreements with their managers in the workplace (p. 472).

The Power Distance Index (PDI) is calculated based on data regarding subordinates’ perceptions and preferences for managers. Country indices were then calculated by adding a constant to the PDI. Hofstede offers several key differences between low and high PDI societies as demonstrated in the work environment. For example, in a low PDI society organization there is a smaller proportion of supervisory personnel and less concentration of authority than in a high PDI society (p. 107).

### Uncertainty Avoidance

The dimension of *Uncertainty Avoidance* is defined by Hofstede as “the extent to which a culture programs its members to feel uncomfortable or comfortable in unstructured situations,” which are “novel, unknown, surprising, [and] different from usual.” “The basic problem involved is the degree to which a society tries to control the uncontrollable” (pp. xix-xx). As the presence of inequality prompts a response in a society evidenced by power distance, so the presence of uncertainty elicits varying levels of attempts to adapt to it. The national Uncertainty Avoidance Index (UAI) is an expression of a national culture’s norm for “intolerance for ambiguity” based on “tendencies toward prejudice, rigidity and dogmatism, intolerance of different opinions, traditionalism, superstition, racism, and ethnocentrism” (p. 146). At the

national cultural level, societies use technology, law, and religion to respond to uncertainty in life.

At the organizational level, firms may adapt to uncertainty through technology, rules and rituals. Technology responds to uncertainty by increasing the predictability of outcomes. Rules are a means of reducing internal uncertainty resulting from member or stakeholder behavior. Rituals are a perceived means of controlling the future, whether rational or irrational. Examples in the workplace include business meetings; training programs; writing and filing memos and reports; accounting; and computer simulations (pp. 147-48).

Three items were used to calculate the national Uncertainty Avoidance Index (UAI) scores. They related to respondents' agreement that company rules should not be broken; intention to remain with the company as measured in length of time; and stress, as expressed as the frequency of feelings of nervousness or tension at work. Hallmarks of high UAI countries include a stronger tendency to remain with the same employer; higher average seniority; lower ambition for advancement; stronger appeal of technological solutions; and higher preferences for larger organizations than in low UAI countries (pp. 160, 169-70).

### Individualism-Collectivism

As defined by Hofstede, *Individualism* is "the degree to which individuals are supposed to look after themselves or remain integrated into groups, usually around the family." The positioning of itself between individualism and *collectivism* (the polar opposite of individualism) "is a very basic problem all societies face" (p. xx).

Broadly speaking, this dimension refers to the relationship between the individual and the collectivity.

Individualism-collectivism has implications in the realm of self-concept and at the societal level. For example, more collectivist societies exhibit wider patterns of living in extended families (versus nuclear families in more individualist societies) and communications in collectivist societies are more high-context (less explicit) in nature than in individualist societies (p. 210). Individualistic societies rest on expectations that each person look after himself and his family only, while collectivist societies rest on expectations that each person be integrated into strong and cohesive in-groups, which provide life-long protection in exchange for unquestioning loyalty (p. 225). Hofstede also points out that individualism-collectivism is the dimension most associated, at least statistically, with a society's degree of modernity –measured in terms of a country's level of economic development (p. 211).

As one may expect, individualism-collectivism has implications in the workplace as well. For example, collectivism is exhibited when compliance with organizational requirements takes on a more “moral” aspect, while a more “calculative” involvement may exist where individualism prevails. In addition, people with a more “local” preoccupation (one concerned with problems internal to the organization) are more influential in a collectivist culture, while a “cosmopolitan” person (one who maintains minimal relations within the organization but considers himself more integrated with the outside world) holds more influence in individualist cultures (pp. 212-13). The Individualism Index (IDV) was derived from items relating to work goals, including the mean values for personal time, freedom,

challenge, use of skills, physical conditions, and training. The first three are associated with high IDV, the latter three with low IDV. Distinguishing characteristics of low-IDV societies versus high-IDV cultures as manifested in the work environment include a higher career importance attached to knowing the right people versus having the right abilities; a preference for group decisions over individual decisions; a greater emphasis on belonging (“membership ideal”) than on individual initiative and achievement (“leadership ideal”); and a tendency to view activities as imposed by context rather than as self-started as in high-IDV cultures (pp. 226-27).

### Masculinity-Femininity

The cultural dimension of *Masculinity-Femininity* is defined by Hofstede as “the distribution of emotional roles between the genders, which is another fundamental problem for any society for which a range of solutions are found; it opposes ‘tough’ masculine to ‘tender’ feminine societies” (p. xx). The primary societal concern regards the implications biological differences between the sexes have for their roles, social and emotional. In the strictest sense, only behaviors directly associated with procreation (i.e., childbearing and child begetting) are inherently “masculine” or feminine;” other roles are based on choices made arbitrarily and within a cultural context of norms and traditions (pp. 279-80). In short, masculinity refers to a society in which social roles of the sexes are distinct, while femininity refers to a society in which the social roles of the sexes overlap, namely, that “both men and women are supposed to be modest, tender, and concerned with the quality of life” (p. 297).

In the workplace, masculinity-femininity is exhibited in various ways. As with individualism-collectivism, Hofstede found differences in work goals to be a key area. The study found that men found “ego” goals of advancement, earnings, training, and “up-to-dateness” more important, while women found “social” goals of friendly atmosphere, position security, physical conditions, manager relations, and cooperation more important (p. 281). Another example of cultural expression of masculinity-femininity in the workplace is in compensation, where feminine cultures are more concerned with equality and mutual solidarity, whereas masculine cultures tend to compensate based on merit and performance. Masculinity may be most succinctly expressed as associated with living in order to work, and femininity as working in order to live.

The national Masculinity Index (MAS), like IDV, was measured from items relating to work ideals. These ideals included many of those listed above: what is desirable in a manager, cooperation, desirable area, employment security, challenge, advancement, recognition, and earnings. The first four corresponded with low MAS, the latter four with high MAS (p. 284). Some of the values evidenced in the workplace that distinguish low-MAS societies from high-MAS societies are the lack of work as central in a person’s “life space;” empathy with others regardless of group; consensus-seeking by managers versus managerial decisiveness and competitiveness in high-MAS societies; resolution of conflicts via problem solving, compromise and negotiation versus conflict resolution via denial or fighting until one party prevails; and competitive advantages in service industries, live products, or biochemistry as

opposed to competitive advantages in manufacturing industries, price competition, heavy products and bulk chemistry (pp. 298, 318).

### Long-Term Orientation

Hofstede defines *Long-term Orientation* as “the extent to which a culture programs its members to accept delayed gratification of their material, social, and emotional needs” (p. xx). This dimension did not emerge in Hofstede’s original IBM study but was defined as a result of a Chinese value survey based on suggestions by Chinese scholars of values related to the teachings of Confucius. Among the factors contributing to long-term orientation are “moral discipline,” “integration” (correlating with individualism-collectivism), and “human-heartedness” (correlating with masculinity-femininity) (pp. 351-53). In short, long-term orientation refers to “the fostering of virtues oriented towards future rewards, in particular, perseverance and thrift,” as opposed to the fostering of past- and present-oriented virtues, “in particular, respect for tradition, preservation of ‘face’ and fulfilling social obligations” (p. 359).

In society, long-term orientation emerges most notably in relationships. In the family, an example is obedience relationships, which even among siblings are emphasized to a greater extent in long-term oriented cultures, as opposed to short-term oriented societies. In addition, marriage is viewed as a more pragmatic than romantic arrangement in a long-term oriented society (pp. 359-61).

Long-term orientation is revealed in the work environment and in the conduct of business. For example, firms in cultures with a more long-term orientation will tend toward building up strong market positions and not to expect immediate results.

Control systems are more conscious of the most recent financial results in short-term

oriented cultures. In addition, the possession and maintenance of personal, horizontally coordinated networks (e.g., *guanxi* in Asia) links more closely the spheres of family and business. One salient characteristic of long-term oriented cultures is that of the importance of compliance within a larger context of vertical cooperation (Hofstede 2001, 361-62). Long-term orientation is also manifested in the business world by emphasizing the building and maintenance of relationships over short-term results. For example, in long-term oriented cultures, the building of strong market position generally renders compromising immediate results, or even less immediate goals such as quarterly or even annual profits, acceptable (Hofstede 2001, 361). Similarly, Lusch and Brown (1996, 24-25) note that parties in an extended relationship expect to accept short-term disadvantages and that long-term orientation reflects the closeness of such a relationship.

#### *The Effects of National Culture on Buyer-Supplier Relationships*

In a conceptual paper discussing trust and corporate alliances, Ariño et al. (2001, p. 114) write, “National differences in value systems, cultural traits, and institutions are bound to have a significant impact on both the degree of trust initially accorded economic actors as well as on the rate at which relational quality improves or deteriorates.” There is much commentary in the extant literature on the influences of national culture on interfirm relationships, including many that have operationalized national culture along one or more of Hofstede’s dimensions. Not only have these works studied buyer-supplier relationships but also joint ventures, consortia and cartels, licensing, franchising, management contracts, and various combinations among them. While there are several legal and financial dissimilarities among the



various relationships studied, they are nevertheless relevant because they all involve a form of exchange and they all consider problems associated with developing such agreements across national as well as organizational cultures (Graham 1988).

In a conceptual piece on international buyer-seller face-to-face interactions, Kale and Barnes (1992) model “national character” along Hofstede’s dimensions. Along with organizational culture and individual personality characteristics of the actors involved, they propose national culture as a factor influencing the style and content of cross-national interactions. For example, a buyer from a high uncertainty avoidance culture would be predicted to prefer attributes in an offering that reduce uncertainty, such as a superior warranty, established brand name, or strong guarantees. In a highly collectivistic society, less emphasis will be placed on variety and pleasure attributes, while high power distance cultures would opt for products with high “status” value over more functional products. In a study of modes of foreign direct investment, Kogut and Singh (1988) combined Hofstede’s first four dimensions into an aggregate “cultural distance” measure. Cultural distance between the home country of the entering firm and the host country was found to be an influence on the mode of foreign direct investment.

Barkema and Vermuelen (1997) perform a rare longitudinal test of Hofstede’s five dimensions. Specifically, they study the “survival” rates of over 800 foreign entries of 25 Dutch multinational corporations in international joint ventures through almost three decades (1966-94). They find international joint venture survival to be negatively associated with distances in long-term orientation, uncertainty avoidance, and (to a lesser extent) masculinity. They also find that differences in uncertainty

avoidance and long-term orientation also reduce a firm's inclination to establish international joint ventures in the focal host country. Another important finding is that there is no decrease in their sample of the effects of cultural distance between the two time periods in the study (1966-1980 and 1981-1994), thus presenting support for the durability of Hofstede's dimensions over a long period.

Chen, Chen, and Meindl (1998), in a conceptual piece, focus on the relation between cooperation and the individualism-collectivism dimension. They propose that cooperation may increase in either individualist or collectivist cultures, depending on whether such cooperation enhances personal identities (better for individualist cultures) or group identities (collectivist). In addition, they also propose individualism-collectivism as associated to the trust-cooperation relationship. They distinguish between cognition-based trust, which is built on role performance knowledge (e.g., performance behaviors conveying competence and reliability), and affect-based trust, which is built on emotional bonds between the actors (especially non-task relational activities that convey personal concern for the other rather than self-interest). They also propose that explicit cooperative rules will be more effective in individualist cultures in promoting cooperation, whereas social pressures are more effective toward the same end in collectivist cultures.

Hewett and Bearden (2001) similarly focus on the individualism-collectivism dimension and trust. They model individualism as moderating the relationship of trust to cooperation, hypothesizing that trust will influence cooperation more strongly in highly collectivistic cultures than in highly individualistic cultures. The

individualism-collectivism dimension referred to the global marketing subsidiary's culture, rather than that of the headquarters.

Doney, Cannon, and Mullen (1998) consider the relationship between national culture and trust. Like Doney and Cannon (1997), they conceptualize five distinct trust-building processes: 1) calculative (trustor's cost-benefit calculation of target acting opportunistically), 2) prediction (development of trustor confidence in the predictability of target's actions), 3) intentionality (trustor evaluations of trustee's motivations), 4) capability (trustor's assessment of target's competence), and 5) transference (trustor's drawing on third-party proof of target's trustworthiness). They posit that Hofstede's first four dimensions of culture influence the choice of trust-forming process (p. 609).

In a conceptual paper concerning global strategic alliances, Parkhe (1991) proposes several effects of culture on such interfirm arrangements. Power distance, for example, is posited to have the most significant influence on alliance structure and communication. Uncertainty avoidance, however, is posited as having the greatest influence on the choices of projects and information and control systems. Parkhe proposes that the individualism-collectivism dimension affects accountability and performance evaluation systems, while masculinity-femininity most significantly influences organizational design and alliance reward systems (pp. 594-95).

In a conceptual article on international cooperative ventures, Tallman and Shenkar (1994) use two of Hofstede's dimensions to test firm choice of international equity joint ventures versus contractual joint ventures. They propose that firms are more likely to opt for equity joint ventures when parent firms are from more

individualistic cultures. Uncertainty avoidance in the parent firm's national culture is also posited to have a positive relationship with firm inclination toward equity joint ventures over contractual joint ventures.

Graham (1988), in a study of negotiation outcomes, includes the power distance dimension as an independent variable. He hypothesizes that buyers in high-PDI cultures will realize higher profits than in low-PDI cultures, and that the disparity between buyers' and sellers' profits will be higher in high-PDI cultures than in low-PDI cultures. These hypotheses are based on theory that norms governing internal boss-subordinate relationships also govern buyer-supplier relationships (supplier as subordinate to the buyer) in many societies (p. 477).

Wong and Chan (1999), in a paper on relationship marketing, study relationship building from the Chinese *guanxi* perspective. Lin and Germain (1998) propose cultural similarity as a variable influencing international joint venture performance, but do not incorporate Hofstede's dimensions in operationalizing cultural similarity.

### Contribution

This research aims to add to the current literature by expanding upon the work of Morgan and Hunt in three ways. First, Morgan and Hunt examine the supplier-retailer relationship. This research will investigate a type of relationship further upstream in the supply chain, that between industrial buyers and their suppliers. Buyer-seller relationships at this stage are predicted to have a strong interpersonal component wherein conceptions of trust and commitment are even more critical, and focused more on product and person than on brand. Second, Morgan and Hunt's

sample consists of members of one industry. Since the sampling frame will include three diverse industries, the research is expected to be more generalizable. Finally, the proposed research will include buyers from all regions of the U.S., and suppliers from around the globe. Indeed, for industrial buyer-supplier relationships the international component is large and often diverse (Min and Galle 1991, Frear, Metcalf, and Alguire 1994). The present research replicates the KMV Model with a sampling frame possessing the above characteristics. The replication will confirm whether the KMV Model holds in different industries, with a broad supply base, and at the industrial buyer level. The proposed research will also provide an investigation into the effects cultural distance has on the mechanisms that lead to trust and commitment, critical where industries involving a large degree of international sourcing and high levels of complexity and innovation are concerned.

**Table 1: Key Terms**

<p><b>TRUST:</b> Exists when one party has confidence in an exchange partner's reliability and integrity (Morgan and Hunt 1994, Moorman, Deshpandé, and Zaltman 1993)</p> <p><b>COMMITMENT:</b> An exchange partner's believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it (Morgan and Hunt 1994)</p> <p><b>RELATIONSHIP TERMINATION COSTS:</b> All expected losses from termination; results from the perceived lack of comparable potential alternative partners, relationship dissolution expenses, and/or substantial switching costs (Morgan and Hunt 1994)</p> <p><b>RELATIONSHIP BENEFITS:</b> an evaluation of outcomes given comparison level among alternatives (Morgan and Hunt 1994, Thibaut and Kelley 1959)</p> <p><b>SHARED VALUES:</b> The extent to which partners have beliefs in common about what behaviors, goals, and policies are important or unimportant, appropriate or inappropriate, and right or wrong (Morgan and Hunt 1994)</p> <p><b>COMMUNICATION:</b> the formal as well as informal sharing of meaningful and timely information between firms (Morgan and Hunt 1994, Anderson and Narus 1990)</p> <p><b>OPPORTUNISTIC BEHAVIOR:</b> deceit-oriented violation of implicit or explicit promises about one's appropriate or required role behavior (Morgan and Hunt 1994, Williamson 1975)</p> <p><b>ACQUIESCENCE:</b> the degree to which a partner accepts or adheres to another's specific requests or policies (Morgan and Hunt 1994, Steers 1977)</p> <p><b>PROPENSITY TO LEAVE:</b> the perceived likelihood that a partner will terminate the relationship in the (reasonably) near future (Morgan and Hunt 1994)</p> <p><b>COOPERATION:</b> refers to situations in which parties work together to achieve mutual goals (Morgan and Hunt 1994, Anderson and Narus 1990)</p> <p><b>FUNCTIONAL CONFLICT:</b> the result of disputes between exchange partners being resolved amicably (Morgan and Hunt 1994, Anderson and Narus 1990)</p> <p><b>UNCERTAINTY:</b> the extent to which a partner has enough information to make key decisions, can predict the consequences of those decisions, and has confidence in those decisions (Morgan and Hunt 1994, Achrol and Stern 1988)</p>
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**Table 1**  
**Continued**

**INDIVIDUALISM-COLLECTIVISM:** a dimension of culture defined by its poles; the degree to which individuals are supposed to look after themselves (individualism) or remain integrated into groups (collectivism) (Hofstede 2001)

**MASCULINITY-FEMININITY:** a dimension of culture defined by its poles; the distribution of emotional roles between the genders, which is another fundamental problem for any society for which a range of solutions are found; it opposes 'tough' masculine to 'tender' feminine societies (Hofstede 2001)

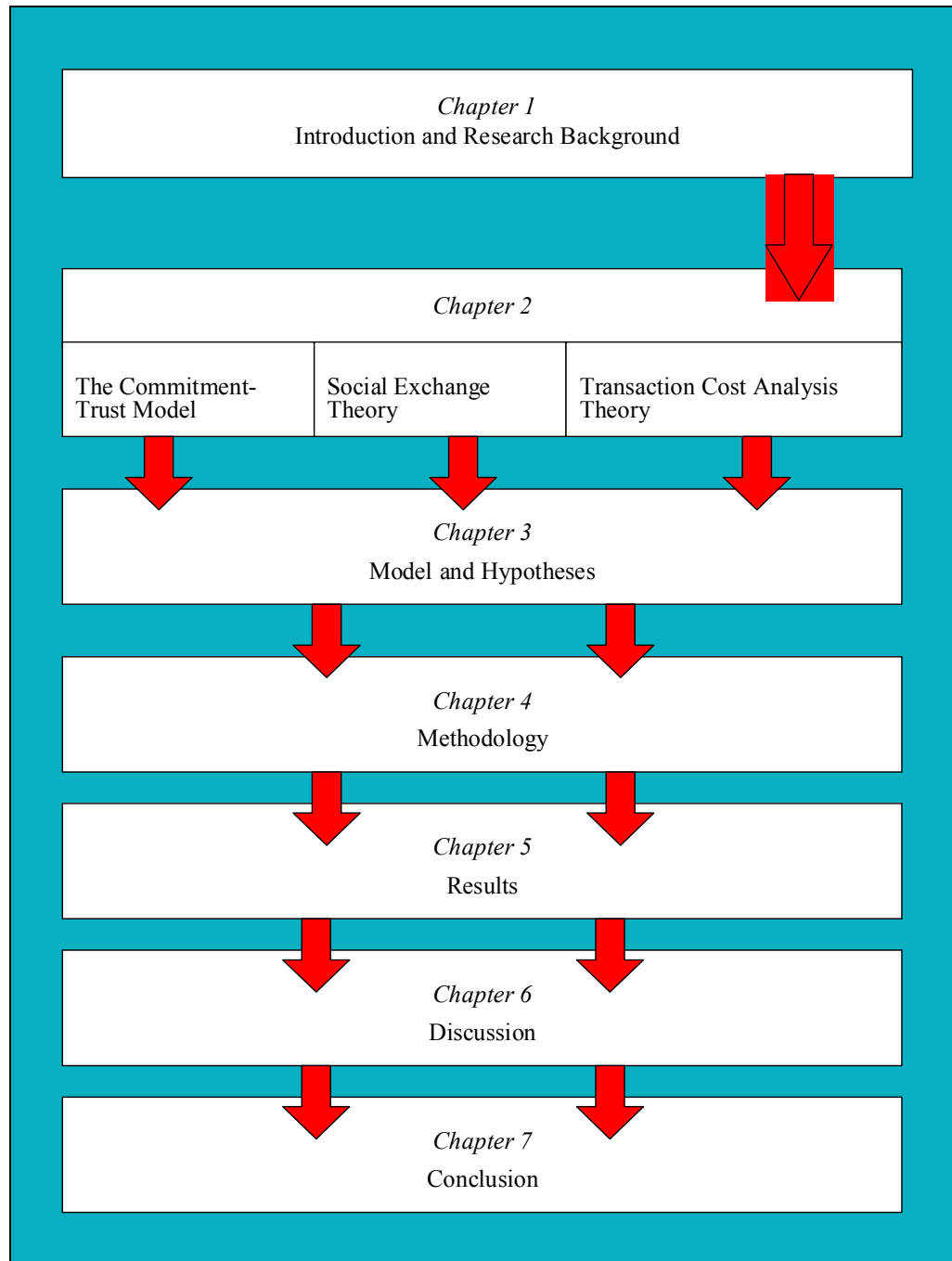
**POWER DISTANCE:** the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed unequally (Hofstede 2001)

**UNCERTAINTY AVOIDANCE:** the extent to which a culture programs its members to feel uncomfortable or comfortable in unstructured situations that are novel, unknown, surprising, and different from usual (Hofstede 2001)

**LONG-TERM ORIENTATION:** the extent to which a culture programs its members to accept delayed gratification of their material, social, and emotional needs (Hofstede 2001)

### Organizational Overview

The dissertation is presented in six chapters; following the introduction are five chapters. The following figure describes the overview of the dissertation:





The second chapter surveys the extant literature concerning the major constructs of the KMV Model, as well as the relevant literature treating social exchange theory, transaction cost theory, international sourcing, and international culture as defined in the five dimensions proposed by Hofstede (2001). The third chapter presents the KMV Model and the hypotheses to be tested. The fourth chapter concerns the data collection and measurement for testing and replicating the model. The fifth chapter describes the results obtained for the measurement and structural models, and compares the replicated KMV with a rival model. Chapter 6 discusses the results. Chapter 7 provides a conclusion and direction for further research.

## Chapter 2: Literature Review

This chapter summarizes the previous research literature on trust and relationship commitment; other constructs related to them in the Key Mediating Variable Model of Morgan and Hunt (1994); the significance of trust and commitment to social/relational exchange and transaction cost theories; the rise in importance of international buyer supplier relationships; and the effects of national culture on organizations. Specifically, the literature concerning commitment and trust and the related constructs of relationship benefits, relationship termination costs, shared values, communication, opportunistic behavior, propensity to leave, acquiescence, cooperation, functional conflict, and uncertainty are discussed. Next, the relevant social/relational exchange theory literature is discussed, which helps to illuminate the nature of informal/non-contractual business-to-business relationships and their formation. A discussion of the transaction cost analysis literature, which also helps to explain interfirm relationships, follows. The next section summarizes the literature on the phenomenon of international sourcing, including its causes and benefits. Finally, there follows a discussion of the influence of national culture on organizations as presented by Hofstede (2001), and a summary of literature that has applied one or more of Hofstede's five national culture dimensions of uncertainty avoidance, masculinity-femininity, individualism-collectivism, power distance, and long-term orientation to international, interfirm relationships.

### *The Key Mediating Variable Model*

The following section presents a brief discussion of trust, commitment, their sources and their outcomes in papers other than Morgan and Hunt. In the Key Mediating Variable (KMV) model, Morgan and Hunt (1994) present trust and commitment as indispensable to successful business-to-business relationships (see Figure 1, p. 6). In addition, trust and commitment are presented as the keys to understanding how important conditions and behaviors –shared values, communication, relationship termination costs, relationship benefits, and opportunistic behavior: the precursors of trust and commitment-- in marketing relationships relate to outcomes –reduced propensity to leave, cooperation, acquiescence, functional conflict, and decreased uncertainty-- relevant to effectiveness and satisfaction.

The KMV Model or its component relationships has been cited extensively in the marketing and supply chain literatures to explain important aspects of long-term buyer-supplier (or other types of marketing) relationships and as the basis for similarly modeled relationships. Other studies have, like Morgan and Hunt, presented trust and commitment as crucial in influencing relationship outcomes (Mohr, Fisher, and Nevin 1996; Holm et al. 1996; Smith and Barclay 1997; Doney and Cannon 1997; Siguaw, Simpson, and Baker 1998; Geyskens, Steenkamp, and Kumar 1999; Moore and Cunningham 1999; Jap 1999; Garbarino and Johnson 1999; Hewett and Bearden 2001; Chaudhori and Holbrook 2001; Friman et al. 2002). In addition, several studies have also included one or more of the sources and outcomes as

constructs of interest in their models, including acquiescence and cooperation (Hewett and Bearden 2001); shared values (McAfee, Glassman, and Honeycutt 2002); and relationship termination costs, benefits, shared values, and communication (Friman et al. 2002).

The following sections discuss the twelve constructs in the KMV Model individually, beginning with the key mediators themselves. Trust and commitment are salient constructs in the relational marketing literature. This prominence derives from their similar centrality in the social/relational exchange theory literature, as both for the bases for repeated exchange. For some of the constructs, parallel concepts are also treated even where not coextensive with Morgan and Hunt's conceptualizations.

### Relationship Commitment

Commitment is an important construct in the literature concerning relationships; it is essential to provide any duration to relationships, business or personal. Seminal literature in studying interpersonal relationships presents commitment as a critical component (Blau 1964). Relationship commitment is defined by Morgan and Hunt as “an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it” (p. 23). Commitment is prevalent as a dependent variable in models of buyer-supplier relationships (Wilson 1995). Organizational commitment, i.e., commitment in a firm's internal relationships, has been studied extensively (Reichers 1985, Steers 1977). In one important social exchange piece cited by Morgan and Hunt for their model, Cook and Emerson (1978) speculate that commitment is “an important concept separating social exchange theory from strictly economic theory”

(p. 737). Dwyer, Schurr, and Oh (1987) offer one of the earliest conceptualizations of commitment in buyer-supplier relationships, and refer to commitment as “an implicit or explicit pledge of relational continuity between exchange partners.” They characterize the commitment phase of buyer-supplier relationship development as one wherein “. . . shared value systems ensure sustained interdependence” (p. 19).

Likewise, Morgan and Hunt’s model incorporates shared values as a precursor to relationship commitment along with relationship benefits, relationship termination costs, and trust itself.

As noted above, much of the literature makes reference to a relationship between trust and commitment, often including one in a definition of the other. In the KMV Model, trust is proposed as both a key mediator and as a precursor to relationship commitment.

## Trust

*Trust* is critical to relationship formation and maintenance, as even repeated interactions between parties conducted without trust more resemble series of transactions than functioning relationships. The marketing literature has been consistent in affirming trust as antecedent to commitment (Geyskens et al. 1999, Morgan and Hunt 1994, Ganesan 1994, Jap 1999). Trust is an important construct when viewing organizational relationship exchanges. According to Blau (1964, p. 94), “Only social exchange tends to engender feelings of personal obligation, gratitude, and trust; purely economic exchange as such does not,” and he suggests that repeated exchange creates trust between groups. Dwyer, Schurr, and Oh (1987) state that trust is important for both parties to understand and develop expectations in

a relational contract. In an important early piece on the exchange perspective toward marketing, Houston and Gassenheimer (1987, p. 10) note that “[t]he implementation varies . . . but the goal [of marketing] is still the development of trust between exchange partners that leads to a long-term relationship,” and also concur with Blau (1964) that development of exchange relationships over time occurs through reciprocal behaviors.

As with commitment, trust is becoming a more important construct in the supply chain literature as an element of successful logistics relationship performance (Bowersox et al. 1989, Tate 1996). For buyer-supplier relationships, Zaheer, McEvily, and Perrone (1998, p. 21) define trust as the belief that the partner “can be relied upon to fulfill obligations, will behave in a predictable manner, and will act and negotiate fairly when the possibility of exploitation exists.” Moore (1998) adopts a similar definition.

#### Sources of Commitment and Trust

The KMV Model proposes *relationship termination costs* and *relationship benefits* as sources of commitment; *communication* and *opportunistic behavior* as sources of trust; and *shared values* as a source of both trust and commitment (see Figure 1, also Morgan and Hunt 1994, 24). These five sources are necessary conditions to produce (or, in the case of opportunistic behavior, to reduce) trust and commitment. While the literature concerning trust and commitment is relatively extensive, the extant literature relating to their precursors in the KMV Model varies in scale and scope. As discussed in the following sections, many of the antecedent

constructs in the KMV Model have been conceptualized slightly differently in the marketing literature.

### Relationship Termination Costs

*Relationship termination costs* are influential in relationships insofar as parties will be reluctant to enter any arrangement from which it will be difficult to disengage. Relationship termination costs are all losses expected due to termination and are a result of the perception of a lack of comparable potential alternative partners, expenses of dissolving the relationship, and/or substantial switching costs (Morgan and Hunt 1994, p. 24). These costs may have one or more components, one of which is switching costs. Switching costs entail the expense of seeking alternative partners after the cessation of a relationship. Relationship termination costs are theorized by Morgan and Hunt as positively influencing relationship commitment, while Dwyer, Schurr, and Oh (1987) suggest that the expectation of high switching costs in a buyer-supplier relationship leads to the concern at least for one party (the buyer) to sustain a long-term, significant relationship. The presence of idiosyncratic investments magnifies switching costs (Heide and John 1988). Idiosyncratic investments are those of knowledge, capital, or personnel that are difficult or impossible to apply in another buyer-supplier relationship (Heide and John 1988, Jackson 1985, Anderson and Weitz 1992). Idiosyncratic investments, also referred to as relationship-specific or transaction-specific investments, are a central concept in transaction cost analysis (Williamson 1985, p. 30; Heide and John 1988) as an antecedent to increased levels of integration. In their empirical study of business-to-business markets, Cannon and

Perreault (1999, p. 443) similarly propose “relationship-specific adaptations” as being a reflection of “an aspect of calculative commitment in business relationships.”

Switching costs are, however, only one component of relationship termination costs, and indeed are not even incurred if no alternative relationship is sought after dissolution. There may be expected costs due to “perceived lack of comparable alternative partners” (Morgan and Hunt 1994) or high exit barriers such as the equity sharing entailed in international joint ventures (Morgan and Hunt 1994, Lin and Germain 1998). In case studies of strategic alliances, Inkpen and Ross (2001, 134) also cite negotiation costs, negative perceptions among competitors of terminating alliances, and alliance endgames leaving partner companies “stuck in an almost endless loop of poor performance and conflict over how to end the alliance” as components of relationship termination costs.

Relationship termination costs, when they lead to increased commitment, reflect a level of mutual dependence. In examining vendor-retailer relationships, Ganesan (1984) explains that dyads that are overly asymmetrical in dependence will not be profitable for the dependent party over the long term, and since such dyads often exist due to perceived lack of comparable alternatives, dissolution is not a feasible solution either. Therefore, Ganesan argues (p. 4), a long-term equilibrium of sorts is achieved through offsetting investments (Heide and John 1988, Buchanan 1992) and investment in “bonding behavior” that may include a buyer’s developing personal relationships with customers of a supplier’s product and specializing ordering, shipping and servicing procedures (Heide and John 1988). In the transaction cost analysis literature such behaviors constitute “credible commitments”



that help sustain a relationship by binding parties more closely to each other (Williamson 1985).

### Relationship Benefits

Firms that provide comparatively higher benefits will be not only more highly sought as partners but their partners will in turn be more highly committed after a relationship is initiated. Thibaut and Kelly (1959) conceptualize relationship benefits as an “evaluation of outcomes” given “comparison level” (CL).  $CL_{alt}$  represents the comparison level of alternatives and is defined as “the lowest level of outcomes a member will accept in the light of available alternative opportunities” (p. 21). Such alternatives may include other relationships or no relationship at all. Therefore, relationship benefits are theorized in Morgan and Hunt (1994) and elsewhere in the literature (Anderson and Narus 1990) as a relative construct seen in comparison with relationship alternatives. In addition, Thibaut and Kelley note that the ultimate factor upon which relationship formation depends is “whether or not the *jointly* experienced outcomes are above each member’s” comparison level for alternatives (p. 23, emphasis in the original).

Relationship benefits have been modeled in the marketing literature with regard to co-marketing alliances, wherein project payoff has a direct relationship to perceived alliance effectiveness (Bucklin and Sengupta 1993). Similarly, Holm et al. (1996, p. 1039) model relationship profitability as positively associated with relationship commitment in a bi-directional relationship. In the supply chain literature, buyer relationship benefits have been proposed as having a direct effect on

buyer relationship commitment, as well as indirect effects, including increased trust and decreased risk of opportunism (Moore 1998).

## Shared Values

Firms that have overlapping ideas of what is right or wrong or high- or low-priority are more likely to trust one another and enter into committed relationships than firms that do not share many similar values, all else equal. *Shared values* are proposed in the KMV Model as antecedent to both trust and relationship commitment. Morgan and Hunt conceptualize shared values as “the extent to which partners have beliefs in common about what behaviors, goals, and policies are important or unimportant, appropriate or inappropriate, and right or wrong” (p. 25). The concept of shared values corresponds to “norms” as defined by Thibaut and Kelley (1959, p. 129) (“a behavioral rule that is accepted, at least to some degree, by both members of the dyad”) and Heide and John (1992, p. 34) (“relational exchange norms are based on the expectation of mutuality of interest, essentially prescribing stewardship behavior, and are designed to enhance the well-being of the relationship as a whole”). Also related to the concept of shared values is that of organizational culture (Enz 1988). Hofstede et al. (1990, p. 286) explain organizational/corporate culture as having the characteristics of being “holistic, historically determined, related to anthropological concepts, socially constructed, soft, and difficult to change.”

In addition to Morgan and Hunt, other authors have proposed shared values as antecedents to trust and/or commitment. Dwyer, Schurr, and Oh (1987) theorize “norm development” as a subprocess of the “exploration phase” which precedes commitment, and that the establishment of shared values helps to sustain mutual

investment in the relationship at the commitment phase. In the supply chain literature, shared values have also been empirically modeled (Parsons 2002) and theoretically proposed (McAfee, Glassman, and Honeycutt 2002) as directly affecting interfirm relationship quality. Jap and Ganesan (2000) empirically model relational norms as a moderating effect on the transaction specific investment-commitment relationship in retailer-supplier dyads, as well as hypothesize a direct relational norms-commitment relationship. Nicholson, Compeau, and Sethi (2001, p. 5), defining “similarity of business values” as existing “when the buyer believes that his or her business values are similar to that of the trading partner,” model shared values as antecedent to trust and having direct, indirect, and spurious effects.

## Communication

*Communication* is also critical in relationship formation, as firms will find difficulty trusting a partner that is unwilling to share key information. Communication is modeled by Morgan and Hunt as an antecedent of trust, and as such, as having an indirect relationship with commitment. Write Dwyer, Schurr and Oh (1987, p. 17), “a relationship seems unlikely to form without bilateral communication of wants, issues, inputs, and priorities.” Anderson and Narus (1990) comment on the lack of consensus as to the directionality of the communication-trust relationship. However, they propose a static model, which limits communication to the past and therefore as antecedent to trust. Anderson and Weitz (1989, p. 315) state that communication enhances trust through dispute resolution, alignment of expectations and perceptions between parties, and reduction of role ambiguity, particularly since much communication is informal. Studying market research

relationships, Moorman, Zaltman, and Deshpandé (1993) hypothesize that the perception of timely communication heightens trust. While Anderson and Weitz (1989) also model communication as positively related to trust, they also model the relationship as bi-directional. Mohr and Nevin (1990) theorize that in “mutually supportive and trusting climates” (i.e., in relational channels, as opposed to marketing channels) communication is more frequent and bi-directional, and uses more informal modes and indirect content. They propose that a fitting of a “collaborative” communications strategy with the aforementioned combination of characteristics with a climate of support and trust yields an outcome of higher commitment, satisfaction, and coordination than would an “autonomous” strategy of lower frequency, greater unidirectionality, more formal modality and more direct content. Anderson and Weitz (1992), in a study of distribution channel dyads, do not include trust in their model, but include communication as an exogenous construct positively related to reinforcing dyad commitment. Similarly, Mohr, Fisher, and Nevin (1996) empirically model a direct effect between communication and commitment, but not trust.

Communication may be seen as having the facets of frequency, direction, modality and content (Mohr and Nevin 1990), or measured along dimensions of direction and intensity (Van de Ven 1976), although communication may be viewed more generally as “meaningful and timely information” shared between firms, both formally and informally (Anderson and Narus 1990, p. 44). Communication is also similar to the concept of information sharing or information exchange in the marketing literature (Cannon and Perreault 1999, Lusch and Brown 1996, Heide and John 1992). Here the distinction is that information exchange or sharing is treated as

a relational norm, an expectation of a degree of communication, whereas communication (“collaborative communication”) itself is generally treated with respect to the qualities and/or quantities of communication behaviors (Mohr, Fisher, and Nevin 1996, note 2 p. 105). While Cannon and Perreault (1992) do not include trust or commitment in their treatment of buyer-supplier relationships, they submit that both concepts are nevertheless associated with the “relationship connectors” proposed in their scheme of relevant constructs, of which information exchange was one (“sharing proprietary information is unlikely to occur in the absence of trust,” p. 441). In the supply chain literature, Daugherty, Meyers, and Richey (2002) have compared communications to information systems support in reverse logistics relationships, including measures relating to information frequency and quality. Communication has been proposed and empirically tested as positively influencing buyer-supplier relationship quality (Parsons 2002) and performance (Stank, Crum, and Arango 1999). Moore (1998) theorizes both direct and indirect (through the mediating effects of trust, risk of opportunism, relationship effectiveness and relationship conflict) relationships between information exchange and commitment.

### Opportunistic Behavior

Firms that are perceived to be taking advantage of the other in a relationship will be considered less trustworthy; hence, *opportunistic behavior* leads to a decreased level of trust. Opportunistic behavior is a concept arising from the transaction cost analysis literature (Williamson 1975, 1985), and is modeled by Morgan and Hunt as a negative influence on trust. Opportunism as defined by Williamson (1975, p. 9) “refers to a lack of candor or honesty in transactions, to

include self-interest seeking with guile.” Write Dwyer, Schurr, and Oh (1987, p. 12), “The basis for future collaboration may be supported by implicit and explicit assumptions, trust, and planning.”

In a comprehensive review of opportunism, Wathne and Heide (2000) discuss the forms, value outcomes, and governance strategies for controlling opportunism. Their typology of forms of opportunism in one dimension divides them into new and existing circumstances, of which the existing form is more relevant to the static KMV Model. The other dimension delineates behaviors as either passive or active, both types of which are operationalized by Morgan and Hunt. One effect of opportunistic behavior is the establishment of safeguards such as monitoring, whose initiation has an implicit assumption of reduced trust in the relationship.

Opportunistic behavior has been theorized as negatively associated with expectation of future interactions (Brown, Dev, and Lee 2000, Hill 1990, John 1984) and trust (Wong and Chan 1999, Moore 1998, Blau 1964, pp. 97ff.). Morgan and Hunt conceptualize opportunistic behavior as the *perception* of such behavior, which is sufficient to decrease trust. Parkhe (1993, p. 804) implies an inverse relationship between perceived opportunistic behavior and trust by hypothesizing a positive relationship between perceived opportunism and contractual safeguards, based on game theory and transaction cost analysis.

In an empirical study of logistics alliances, Moore (1998) proposes a negative direct relationship between risk of third-party opportunism and commitment. Moore and Cunningham (1999) hypothesize effective logistics relationships as possessing

lower levels of opportunism and higher levels of trust. However, Moore and Cunningham propose no causal link between the two constructs.

### *Outcomes of Trust and Commitment*

#### Acquiescence

Once a firm has committed to a relationship, it is more likely to accede to the requests given by the partner. *Acquiescence* is an outcome of relationship commitment in the KMV Model, defined by Morgan and Hunt as “the degree to which a partner accepts or adheres to another’s specific requests or policies” (p. 25). Adopting the same definition, Hewett and Bearden (2001) include acquiescence in their model of marketing headquarters-subsidary relationships. However, their model posits acquiescence as a direct effect of trust rather than commitment, which is not included in their model. In a study of buyer-supplier relationships, Cannon and Homburg (2001, p. 33) include “relationship-specific adaptation” in their model as an exogenous construct, defined as “changes in process, product, or procedures specific to the needs of a particular customer.”

Acquiescence has parallel concepts in the literatures. In a study of supplier-reseller relationships, Kumar et al. (1992, p. 240) conceptualize compliance as the reception given by a partner to the other’s channel policies and programs. A high level of commitment is necessary to promote stability for compliance, especially given that the partners’ goals may be incongruent at a given time. Also similar to acquiescence is the concept of flexibility. The primary distinction in the various literatures is that flexibility involves not only responses to the requests or policies of

the other partner, but to responses to changes in the environment outside the dyad. Another common distinction is that often flexibility is modeled for only one member of the dyad (as with Cannon and Homburg's conceptualization of relationship-specific adaptations). Heide and John (1992, p. 35) list flexibility as a relational norm and define it as "a bilateral expectation of willingness to make adaptations as circumstances change." Bello and Gilliland in one questionnaire item measure flexibility as "flexibility in response to requests for changes is a characteristic of both parties" (p. 31). However, in some pieces (Cannon and Perrault 1999, Heide 1994, Bello and Gilliland 1997, Lusch and Brown 1996) the operationalizations of flexibility are also similar to cooperation as defined by Morgan and Hunt.

### Propensity to Leave

Once a firm has committed to a valuable relationship, it will be less likely to leave the relationship in the foreseeable future. *Propensity to leave* is a construct modeled as negatively associated with commitment in the KMV Model. As Morgan and Hunt's model is static, propensity to leave is a perception of the likelihood that the partner would dissolve the relationship "in the (reasonably) near future" (p. 26). In a study of manufacturer-independent sales agent dyads, Anderson and Weitz (1992) model propensity to leave as its converse, perceived continuity of relationship. Trust was hypothesized as antecedent and directly causal to perceived continuity, but also had a spurious relationship in the model through communications.

Similar and converse to Morgan and Hunt's conceptualization of propensity to leave is that of "long-term orientation" as defined in much of the relational marketing literature (Lusch and Brown 1996, Ganesan 1994). This construct, which like the



others in the KMV is based on the perceptions of the relationship partners, is to be distinguished from Hofstede's (2001) conceptualization of long-term orientation as a dimension of national culture. Ganesan (1994, p. 3) explains that long-term orientation entails "both the desire and utility of a buyer toward having a long-term relationship." He models trust as a (two-dimensional) direct influence on long-term orientation.

### Cooperation

When firms are engaged in a committed and trusting relationship, working together to achieve common goals becomes more frequent and feasible. *Cooperation* is theorized as an outcome of both commitment and trust in the KMV Model. Cooperation has been conceptualized primarily from the perspective of motive, from relations or situations, or from behaviors (Chen, Chen, and Meindl 1998). As conceptualized by Morgan and Hunt, cooperation is treated as the mutual perception of a situation in which the two parties are acting congruently. In addition, cooperation entails the active participation by one or both actors toward sustaining the relationship, whereas acquiescence reflects a passive acceptance of one partner to the requests of the other (Morgan and Hunt 1994, p. 26, see also Cannon and Perreault 1999, p. 443). In order for a given member of a group to behave cooperatively, it is first necessary for that actor to be reliable and prepared to do so (Thibaut and Kelley 1959, pp. 257-58). Frazier (1983, p. 73) states that cooperation "reflects the firms' ability to collaborate and work together in a joint fashion toward their respective goals."

Hewett and Bearden (2001, p. 53) model cooperation, defined as “complementary coordinated actions taken by [the partners] to achieve mutual outcomes,” as being caused directly by trust. Anderson and Narus (1990, p. 45) define cooperation as “similar or complementary coordinated actions taken by firms in interdependent relationships to achieve mutual outcomes or similar outcomes with expected reciprocation over time,” reflecting a conceptualization that is dynamic and behavioral as opposed to Morgan and Hunt’s static, situational perspective. Like the KMV model, that of Anderson and Narus posits trust as antecedent to cooperation. However, some measure of acquiescence as defined by Morgan and Hunt is included in the construct of cooperation as operationalized by Anderson and Narus (p. 49).

Cooperation has also been associated, or even synonymous with, trust in game theory literature (Parkhe 1993, Hill 1990), particularly as it relates to opportunism or “cheating” by the other player in a prisoner’s dilemma dyad. However, cooperation in such settings nevertheless implies a level of trust necessary before the choice is made by a player to cooperate, rather than cheat. Firms are more disposed to cooperate when their partners have demonstrated trustworthiness (Hill 1990). Cooperation is possible when the goals of each actor are positively related to each other, and are recognized as such (Chen, Chen, and Meindl 1998). “Cooperative norms” as defined by Cannon and Perreault (1999) and Siguaw, Simpson, and Baker (1998) overlap with flexibility and solidarity, two of the relational norms described by Heide and John (1992).

## Functional Conflict

Parties involved in trusting relationships are more likely to make efforts to insure that conflicts be more constructive than destructive in nature; they are more prone to recognize good intentions in the other party. While conflict is never absent in relational exchanges (Dwyer, Schurr, and Oh 1987), those that are associated with a high level of trust are theorized to have a greater presence of conflict that is “functional.” An early discussion of functional conflict is presented by Deutsch (1969, p. 19), writing that functional conflict provides a “medium through which problems can be aired and solutions arrived at.” He also notes that the stronger, more salient an existing relationship is, “the more likely it is that a conflict will be resolved cooperatively” (p. 27). Assael (1969) also proposes criteria for distinguishing between destructive and constructive conflict. Among the distinctions cited for conflict to be constructive were frequent and effective communication and the standardization of modes of conflict resolution, and that “organizations should encourage a continuous reappraisal of policies to maintain flexibility in defining and fulfilling the economic and organizational requirements of the system” (p. 581).

Anderson and Narus (1990), like Morgan and Hunt, model “functionality of conflict” as a direct outcome positively influenced by trust. They define the construct as “an evaluative appraisal of the results of recent efforts to resolve disagreements” (p. 45). The authors operationalize functionality of conflict as the extent to which disagreements between manufacturers and distributors increase or decrease the productivity of the relationship. Brown, Dev, and Lee (2000, pp. 53-54) include

“harmonization of conflict” as a relational norm, defining it as “the extent to which channel members achieve mutually satisfying resolution of their conflicts.”

Bowersox et al. (1980, p. 81) comment on functional system results in conflict. They distinguish two situations in which channel conflict proves functional, based on their respective results: unification of the channel system, or channel system adaptation. The first result occurs when channel members reach the conclusion that no alternative relationship exists as satisfactory as the current one, and stress is consequently reduced. The second result occurs when conflict occasions system changes that improve distribution performance. While the second situation conforms more to Morgan and Hunt’s conceptualization of functional conflict, Bowersox et al. emphasize that the dissolution of an unsatisfactory alliance may be a favorable result of functional conflict as well, as long as the net outcome is positive.

In a study of international joint ventures, Lin and Germain (1998) conceptualize four forms of “conflict resolution strategy”: 1) problem solving, 2) compromising, 3) forcing, and 4) legalistic strategy. The former two may be viewed as functional conflict, the latter two as destructive conflict. Conflict resolution strategy is modeled as a mediator between the context variables of cultural similarity, relative power, and age and the performance outcome of satisfaction, and the authors note that “when conflict resolution processes are properly managed, IJVs are often energized” (p. 180). Problem solving is operationalized as direct discussions, attempting to get all concerns out in the open, the offering and the requesting of ideas by both partners, and a partner firm demonstrating the logic and benefits of its position. Compromising is operationalized as proposing a middle ground, the use of

“give and take,” finding an intermediate position between those of the two parties, and trying to find a fair combination of gains and losses for both parties (p. 195). Lin and Germain also propose a positive relationship between relationship age and problem-solving and compromising, noting that “[a] party’s reliance on legal mechanisms may decline as an IJV ages, since uncertainties regarding the other party’s competence, reliability, and other qualities tend to decrease over time” (p. 182).

### Decision-Making Uncertainty

When a party in a relationship trusts the other, that trust can reduce the uncertainty inherent in decisions about the future, since trustworthiness renders the behavior of the other party more predictable. In the KMV Model, *decision-making uncertainty* is posited to have an inverse relationship with trust. Duncan (1972), in a seminal piece on environmental uncertainty, describes uncertainty as having three components: 1) a lack of information as regards the environmental factors associated with a given decision-making situation; 2) not knowing the outcome of a specific decision in terms of gain or loss from a correct or incorrect decision, respectively; and 3) the inability to give probabilities with confidence as to how environmental factors will affect the decision-maker’s success or failure (318). In Duncan’s conceptualization the environment is defined as “the totality of physical and social factors that are taken directly into consideration in the decision-making behavior of individuals in the organization” (314), and possesses the dimensions of simple-complex and static-dynamic. Duncan also emphasizes that not only uncertainty but also the dimensions of the environment are defined in terms of the perceptions of the

actors in question. Given that trust entails a level of mutual confidence and reliability, environmental decision-making uncertainty is theorized to decrease as a result of increased trust (Ring and Van de Ven 1992, 489).

Achrol and Stern (1988, 37), adapting Duncan's definition, defined decision-making uncertainty as having three components of 1) adequacy of available information for decision-making, 2) predictability of the consequences of a given decision, and 3) the decision-maker's degree of confidence at the time of making the decision. In a study of retailer-supplier relationships, Buchanan (1992, 71) operationalizes uncertainty as "the degree to which department sales can be predicted from past sales." Buvik and John (2000, 56) define uncertainty as "the unpredictability of the task environment." Uncertainty has also been used to describe an environment possessing the characteristics of low availability of resources for inputs or outputs, high heterogeneity, high concentration, high rate of change and high interconnectedness of the processes of change (Arndt 1983, 49).

### *Social/Relational Exchange Theory*

The purpose of the following section is to present the importance of social exchange theory. Since the KMV Model is rooted in the framework of social or relational exchange theory, a rudimentary understanding of that perspective helps to understand the basis for Morgan and Hunt's model. Relationship marketing refers to the treatment of business-to-business or business-to-consumer relationships in a more personal and less transactional manner. Morgan and Hunt define relationship marketing as referring "to all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges" (22). Social exchange

theory is grounded in the premise that parties enter into long-term relationships in order to accrue additional benefits. The relationship usually begins with one of the parties initiating an exchange. Further successful interactions then lead to increased mutual trust.

Lambe, Wittman, and Spekman (2001) offer a comprehensive review of social exchange theory as applied to business-to-business relationships. They present the four foundational premises of social exchange theory as: 1) that exchange interactions result in economic and/or social outcomes; 2) that the outcomes are compared over time to alternative exchanges to determine dependence on the exchange relationship; 3) positive outcomes derived over time increase firms' trust of their trading partner(s) and commitment to that exchange relationship; and 4) that that positive exchange interactions over time produce new relational exchange norms that govern the exchange relationship.

Blau (1964, 91) defines social exchange as "voluntary actions of individuals that are motivated by the returns they are expected to bring and typically do in fact bring from others." The need for reciprocation for received benefits in order to continue receiving them will serve to initiate social interactions and group structure. Even before the establishment of common norms, roles, or goals, the benefits to be gained from the exchange relationship provide incentives for social interaction. A network of social relationships and group structure then begins to emerge. Finally, group norms and expectations are more solidified. Blau distinguishes social from economic exchange first by stating that whereas economic exchange entails specific obligations, social exchange "involves the principle that one person does another a

favor, and while there is a general expectation of some future return, its exact nature is definitely *not* stipulated in advance” (pp. 92-93, emphasis in the original). Given the unspecified nature of future obligations, trust that a partner will fulfill those obligations is necessary for social exchange. Such behaviors also help to create a relationship that tends to be long-term, as social bonds in an actor become reinforced by remaining obligated to others as well as through a long period of trusting that others will discharge their own obligations (pp. 98-99).

Thibaut and Kelley (1959), like Blau, present a seminal work to social exchange theory. One of their most cited contributions to relational marketing theory is the pair of concepts of CL and CL<sub>alt</sub>, mentioned earlier here in the discussion on relationship benefits. Also important in their relevance to relational marketing is their focus on dyadic relationships in most of their research. Another key conclusion Thibaut and Kelley draw is that the establishment of relational norms may serve in place of contracts or other legal mechanisms.

Among the characteristics of relational exchange in marketing channels are strengthened norms of role integrity, relationship preservation, and harmonization of conflict (Brown, Dev, and Lee 2000). Role integrity provides stability and the possibility of role expansion. Relationship preservation reflects mutual perceptions of the relationship 1) as distinct from the merely transactional, 2) as to its importance, and 3) as to its longevity. Harmonization of conflict, as explained above, entails achieving mutual satisfaction in resolving conflicts.

While there is not a perfect applicability, many of the most important assumptions and constructs from exchange theory at the interpersonal level provide



guidance and insight to interactions among firms. Dwyer, Schurr, and Oh (1987) present a model to illustrate buyer supplier relationships along the transaction-relational continuum. Their model of buyer-supplier relationships is measured along two axes, one representing net expected benefits of the supplier and the other those of the buyer. It is when the levels of net expected benefit are high in absolute terms for *both partners* that “bilateral relationship maintenance” emerges (p. 15). They cite both the literature on marriage relationships to describe their framework for buyer-seller relationships and the work of Thibaut and Kelley (1959) to describe the transitions between phases. Drawing on both streams of research, Dwyer, Schurr, and Oh list five stages of marketing relationship development: 1) awareness, 2) exploration, 3) expansion, 4) commitment, and 5) dissolution. In the awareness phase, each party unilaterally assesses various exchange partners against alternatives. In the exploration phase, interaction occurs and interdependence gradually increases as the young relationship is tested; in this phase termination of the relationship is uncomplicated. The expansion phase entails deepening interdependence resulting from both dyad members’ satisfaction with their roles. Finally, in the commitment phase shared values and adopted structures of governance fortify sustained interdependence and the relationship is marked by consistent and significant mutual inputs as well as conflict resolution and adaptation. However, the very nature of the firm as a collective of individuals entails differences and qualifications in applying the tenets of interpersonal social exchange theory to interfirm relationships. For example, while Ring and Van de Ven (1994) propose that “[i]nformal psychological contracts increasingly compensate or substitute for formal contractual safeguards as

reliance on trust among parties increases over time,” they also propose that the formalization of informal understanding commitments will occur “when the temporal duration of interorganizational relationships is expected to exceed the tenure of agents” (pp. 105-06).

Frazier (1983) also proposes a framework for interfirm exchange. The framework includes a series of processes of initiation, implementation, and review. In the initiation process, firms seek to commence exchange relationships within marketing channels. At the start of the implementation process, exchanges of services products and information begin between the firms and personnel interact consistently. Frazier models the process as also consisting of subprocesses of achieved influence, goal compatibility, role satisfaction, manifest conflict, conflict resolution and, finally, cooperation and effort. The review process is an evaluation of the rewards and/or losses achieved by each firm as a result of the exchange. Similar to the expansion phase of Dwyer, Schurr, and Oh (1987), Frazier models the set of processes as a loop, with the processes as highly interactive and ultimately renewing the relationship as a result of each partner’s satisfaction with the role performance of the other and the related rewards.

Wilson (1995) proposes a relationship framework similar to Dwyer, Schurr, and Oh (1987). In the first phase of his model, “partner selection,” Wilson posits a more active firm pair than that of the “awareness” phase of Dwyer, Schurr, and Oh wherein partners may already be conducting business and a deeper relationship is sought by one or both actors. The second phase, “defining purpose,” is influenced by the importance of communication in the literature. The third phase, “setting

relationship boundaries,” entails processes that may (in the case of joint ventures) or may not possess a legal and explicit nature. Wilson’s fourth phase, “creating relationship value,” entails deriving benefits from the new partnership that would have been unattainable by each firm independently. It is in this phase that relationship-specific investments (in Wilson’s words, “nonretrievable investments”) assume a prominent role. In addition, cooperation and commitment are active in this phase. Finally, in the “relationship maintenance” phase Wilson views variables such as trust and satisfaction as becoming latent, as “they are issues that have been or do not need the active involvement of those who manage the relationship” (343).

With regard to business relationships, social exchange theory emphasizes two salient characteristics. First, the development of a dyadic business relationship requires that both members consider the exchange worthwhile. Second, because they result from relationships between individual members of each firm, cooperation in such relationships is largely informal in nature (Holm et al. 1996).

### *Transaction Cost Analysis Theory*

The purpose of the following section is to provide a brief introduction to transaction cost analysis theory. The primary relevance of the theory is by contrast: if social exchange theory, upon which the KMV Model is set, concerns relationships as the unit of analysis, transaction cost analysis treats the transaction as the primary unit of interest. In addition, transaction cost analysis theory has provided valuable concepts into the discussion of relationship formation, including the goal of reducing opportunistic behavior and the concept of asset specificity (which, as discussed below, is related to the concept of relationship termination costs). If relational

marketing may be viewed as one end of a continuum, the other end would be anchored in the discrete transaction (Dwyer, Schurr, and Oh 1987). The theory of *transaction cost analysis* explains the basis for the firm's existence as "transaction costs," which include the costs of thought, planning, and contracting associated with each transaction. An early basis of transaction cost analysis is the work of Coase (1937). A central tenet of transaction cost analysis is that firms may be able to reduce costs if some transactions are internalized rather than conducted in the market. Transaction cost analysis has provided the theory for much of the research on marketing channels and other relationships between firms (Anderson and Weitz 1992, Brown, Dev, and Lee 2000; Buvik and John 2000; Ganesan 1994; Heide 1994; Heide and John 1988, 1992; John 1984; Stump and Heide 1996; Wathne and Heide 2000; Rindfleisch and Heide 1997).

Williamson (1978, 1985), building upon Coase's foundation, advances that transaction costs become increasingly relevant whenever actors in an economic exchange invest in relationship-specific assets. Transaction cost analysis is based on two assumptions: First, one of "bounded rationality" – that limits on knowledge, foresight, skill and time restrict the abilities of individuals in complex situations; and second, an assumption of opportunism, that economic agents will seek to disguise, hide and confuse others to make the most of transactions. In addition, there are three dimensions of transaction costs. The first is transaction frequency. The higher the number of transactions, the higher will be the costs associated. Hence, firms think of internalizing those operations with high frequency of transaction. The second dimension is "asset specificity," the degree to which some assets (geographic,

physical, capital, human etc.) are of value primarily to one firm. The last dimension of transaction costs is that of uncertainty, which is due to bounded rationality.

Uncertainty assumes three types: primary uncertainty (general inability to predict the future), secondary uncertainty (lack of communication between actors), and behavioral uncertainty (strategic opportunistic behavior about disclosure of information).

In transaction cost analysis, the transaction itself is the unit of analysis. As noted above, Dwyer, Schurr, and Oh (1987) view discrete transactions as one end of the relational continuum, emphasizing that “[d]iscrete transactions are characterized by very limited communications and narrow content.” The authors state that departure from discreteness of transactions forms the basis for a strong supplier base or customer franchise, noting that the root of “future collaboration may be supported by implicit and explicit assumptions, trust, and planning. Relational exchange participants can be expected to derive complex, personal noneconomic satisfactions and engage in *social* exchange” (12, emphasis in the original).

In this context, the open or traditional spot market is increasingly seen as less important relative to other means of governing exchange. The concept of governance may be defined as “a multidimensional phenomenon, encompassing the initiation, termination, and ongoing relationship maintenance between a set of parties” (Heide 1994, p. 72). Based on the assumptions of transaction cost analysis, firms will choose between a market-based price mechanism for governance, or a solution based on integrated structure of authority, or “hierarchy,” as a means of governance. There is also a distinction between “unilateral/hierarchical” and “bilateral” forms of non-

market governance along several dimensions. First, in its *initiation* bilateral governance is typically based on selective entry and value training (versus skill training for unilateral/hierarchical governance). Second, regarding relationship maintenance, bilateral governance typically entails overlapping *roles* (versus individualized roles as applied to the whole relationship), joint *planning* subject to change (as opposed to unilateral binding contingency planning), bilateral and primarily negotiated *adjustments* (versus explicit change mechanisms), internal *monitoring* based on self-control (as opposed to external and reactive measurements of output and behavior), long-term system-based *incentives* (as opposed to incentives tied to output and behavior), and *enforcement* rooted in mutuality of interest (versus rooted in legitimate contractual authority). Finally, in its *termination*, bilateral governance is open-ended, while unilateral/hierarchical governance is fixed in length or contains explicit termination mechanisms (Heide 1994, Williamson 1985, 75-77).

The make-buy decision of a firm is a classic example of a market versus hierarchy choice according to transaction cost economics. The market solution offers the advantages of lack of bureaucratic distortion and the potential for aggregation of demands that leads to economies of scale and scope. However, when an input is highly specialized (high asset specificity) and of a fixed quantity to be supplied, these benefits must be balanced against the costs of negligible economies of scope and adaptation (Williamson 1985, pp. 90-91). In addition, however, there are measurement and enforcement costs associated with transactions that constitute a large part of transaction costs. Write Choi, Lee, and Kim (1999), traditional, explicit contracts

are seen to reduce enforcement costs by stipulating in advance the terms of trade and arranging for enforcement by third parties, whereas the value of a reputation for fair trading, not restricted by any legal requirement other than sanctions of social nature, provides the basis for confidence in future performance, promotes cooperation, and thus creates networks and clusters of relational or implicit contracts (p. 192).

Between the endpoints of explicit and implicit contractual relationships exists the use of “credible commitments.” As mentioned previously, they are used to bind two parties in an exchange relationship more closely together, and this is achieved by idiosyncratic investments. Such investments add stability to relationships by altering the participants’ incentive structures to maintain the relationship. In a study of firms purchasing standardized MRO (maintenance, repair and operating) items, Noordewier, John, and Nevin (1990) conclude that increases in relational contracting tend to lower transaction costs under conditions of high external uncertainty.

In several respects, transaction cost analysis has displayed shortcomings in explaining firm behavior. In addition to Noordewier, John, and Nevin (1990), other authors (Anderson and Narus 1990, Dwyer, Schurr, and Oh 1987) have demonstrated that norms and interpersonal relationships can provide adequate governance, as Lambe, Wittman, and Spekman (2001) note. Even the assumption of universal opportunism itself has come into question within the context of relational exchange (Morgan and Hunt 1994, p. 25).

### Summary

Morgan and Hunt’s (1994) model incorporates multiple concepts from the literature, primarily social exchange theory. The KMV Model has been a valuable and frequently cited contribution in industrial buyer-supplier relationships, but to the

author's knowledge has remained untested in a multi-industry setting of industrial purchasing. The current research addresses the lack of operationalization of the KMV Model's constructs in industries beyond its original sampling frame of retailers in a single industry.

The significance of trust and commitment to social/relational exchange and transaction cost theories has been documented; the current study builds on this foundation in demonstrating the important of trust and commitment in cementing successful supply chain relationships. In addition, with the increasing importance of international buyer supplier relationships and the consequent effects of national culture on organizations, the present study will contribute by operationalizing important social exchange constructs in the context of relationships that span borders, to test any influences cultural distance may produce.



## Chapter 3: Model and Hypotheses

Morgan and Hunt (1994) offer thirteen hypotheses concerning the relationships among trust, commitment, and their antecedents and outcomes. Figure 1 (p. 6) displays the relationships graphically. Since its presentation, other studies have tested relationships proposed within the KMV Model, including trust-commitment (Garbarino and Johnson 1999, Moore 1998), relationship benefits-commitment (Moore 1998, Holm et al. 1996), communication-trust (Moore 1998), opportunistic behavior-trust (Wong and Chan 1999, Moore 1998), and trust-cooperation (Hewett and Bearden 2001). However, as of this writing no other study has empirically replicated the entire KMV Model comprehensively. The hypotheses of the replication are reintroduced here as they were in Morgan and Hunt (1994):

- H<sub>1</sub>: *There is a positive relationship between relationship termination costs and relationship commitment.*
- H<sub>2</sub>: *There is a positive relationship between relationship benefits and relationship commitment.*
- H<sub>3</sub>: *There is a positive relationship between shared values and relationship commitment.*
- H<sub>4</sub>: *There is a positive relationship between shared values and trust.*
- H<sub>5</sub>: *There is a positive relationship between communication and trust.*
- H<sub>6</sub>: *There is a negative relationship between opportunistic behavior and trust.*
- H<sub>7</sub>: *There is a positive relationship between relationship commitment acquiescence.*
- H<sub>8</sub>: *There is a negative relationship between relationship commitment and propensity to leave.*

- H<sub>9</sub>: *There is a positive relationship between relationship commitment and cooperation.*
- H<sub>10</sub>: *There is a positive relationship between trust and relationship commitment.*
- H<sub>11</sub>: *There is a positive relationship between trust and cooperation.*
- H<sub>12</sub>: *There is a positive relationship between trust and functional conflict.*
- H<sub>13</sub>: *There is a negative relationship between trust and uncertainty.*

## Chapter 4: Methodology

### Model

The basic structural model follows Morgan and Hunt's KMV Model (Figure 2). Since the first contribution of the current research is to replicate as closely as possible the KMV Model, scale items were maintained except where detailed below.

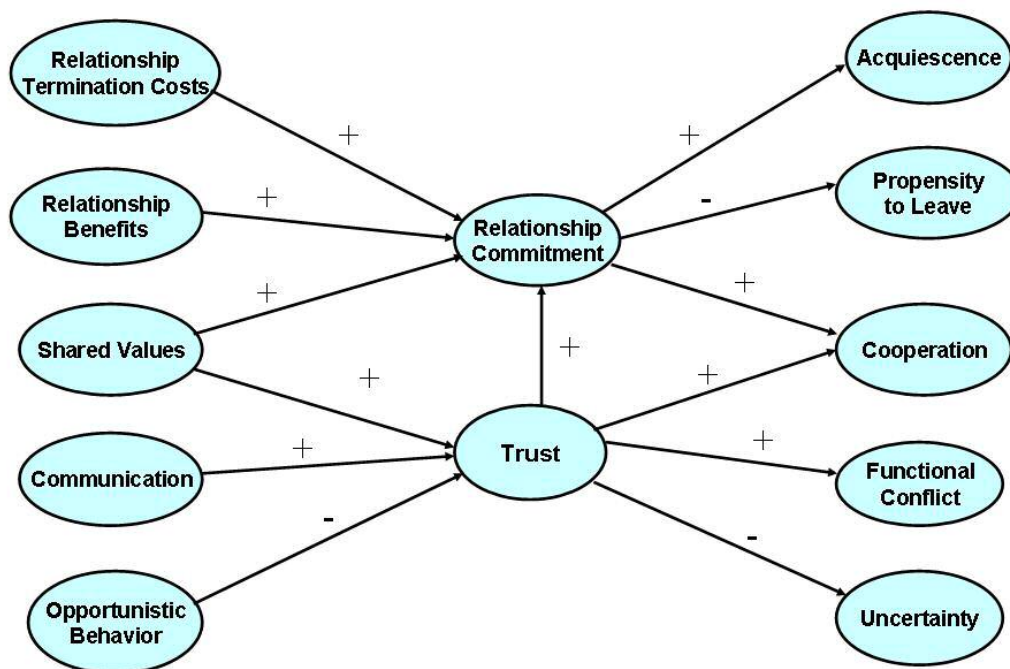


Figure 2

### Data Collection: Sample

Three industry sectors were selected: 1) fabricated metal products (SIC code 34), 2) industrial machinery and equipment (SIC code 35), and 3) electronic and other

electric equipment (SIC code 36). This allowed the researcher to obtain a certain amount of variance in the constructs and improve the generalizability of the findings, yet also control for the occurrence of industry effects. Furthermore, these sectors have a relatively high level of sourcing from overseas (Homburg et al. 2002), an important consideration as the survey aimed to elicit a broad variety within the sample in terms of international sourcing. The sampling frame was developed from the membership database obtained from the Institute for Supply Management (ISM), a source that contains contact details for each member. A practical consideration was that the three sectors chosen had sufficient membership sizes to accommodate a mail questionnaire.

By selecting from among members of the ISM, a population of experienced, up-to-date, and strategically involved purchasing professionals is expected to respond to the questionnaire. In addition, the selection of a population of purchasing managers from manufacturers allows for a testing of the generalizability of the KMV Model. The population of Morgan and Hunt's (1994, 27-28) original study was composed of decision-makers at the retail level. One contribution of the present study is to investigate whether the sources and benefits of trust and commitment may be realized from the perspective of the manufacturer as well as the retailer. Another distinction is that the population from Morgan and Hunt (1994) consisted of members of only one industry, compared with the three broad SIC categories of the current study. Conversely, one important similarity between Morgan and Hunt's population and that of the present study is that both sets of decision-makers were evaluating relationships with supplier firms. Finally, the present study differs from Morgan and

Hunt with regard to the relationships themselves, as the present study elicited responses concerning international suppliers, whereas in Morgan and Hunt (1994), the suppliers were domestic.

#### Data Collection: Unit of Analysis

The unit of analysis is the relationship between a (U.S.) buyer and its supplier. Respondents were requested to complete the questionnaire with regard to a significant overseas supplying manufacturer. Respondents were prompted to exclude Canada from consideration, to allow for more culturally distant countries in the responses, as Canada is a significant trading partner with the U.S. and shares with the U.S. almost identical indices along all five of Hofstede's dimensions of national culture.

#### Informant Selection

The original list of potential respondents consisted of over 6,200 members of the Institute for Supply Management, a U.S.-based association of supply chain management professionals. Only listings based in the U.S. were considered. An important consideration in mail surveys is that respondents be key informants. Firms in the sampling frame were contacted by telephone not only to identify a key informant for the survey, but also to insure that the firm sources directly from abroad, to verify the contact details, and to give notice of execution of the study (Skarmeas et al. 2002). This procedure was followed to purify the sampling frame to enhance response rate, and eliminated mailings to multiple respondents in the same location.

The above procedure reduced the number of targeted respondents, both in ascertaining key informants who were willing to respond and in confirming that

sourcing was conducted outside North America. In addition, duplicate personnel from the same location were eliminated from consideration. In addition, entries with incomplete contact information were not considered for mailing the questionnaire. Ultimately, a sampling frame 700 was derived from the original list after the above procedures.

### Survey Execution

Prior to deciding the final version of the survey instrument, pretesting was performed to enhance relevance and clarity of the scale items, as well as the overall attractiveness of the survey. Local professionals with experience in corporate purchasing served as pretesters. In addition, the pretests served as a basis for adaptation of several of the scale items to be more germane to the sampling frame, which represents a completely different population than that sampled by Morgan and Hunt (1994).

For implementing the survey itself, the Tailored Design Method of Dillman (2000) was followed. This method consists of multiple contacts with respondents via first class mail and a final contact that differs in mode. The first mailing was a pre-notice letter sent before the questionnaire itself. The questionnaire mailing was sent a few days later and included a cover letter explaining the nature and importance of the research. A week after the questionnaire a postcard was sent expressing gratitude to respondents and serving as a reminder to non-respondents. After another week a replacement questionnaire was sent by first class mail to non-respondents of the first mailing only.

Seven hundred surveys were originally mailed. One hundred seventy-two usable surveys were returned, yielding a response rate of 24.6%. Those surveys provided the data for the initial analyses. Since the perceptions of non-respondents may differ from those who responded to the questionnaire, non-response bias may be present. One means of testing non-response bias is a comparison between answers of late respondents of the survey to early respondents (Lambert and Harrington 1990). Late respondents more than early respondents answer surveys as non-respondents would (Armstrong and Overton 1977). A *t*-test was run to test for significant differences between early and late respondents along demographic characteristics (involvement in international purchasing, total revenues of firm); no significant differences were found to exist between the two groups ( $p = .916$ ). When testing for non-response bias along the constructs of the model, no differences were present; after adjusting for alpha inflation (Flynn et al. 1990), a significance level of .004 was not met in any of the constructs. Table 2 provides the distribution of the sample by region and countries with 3 or more suppliers, as indicated by their respective respondents. China was by far the most common home country for suppliers among the respondents but a diverse distribution still arose, considering the small sample size.

<b>Americas</b>	<b>Asia</b>	<b>Europe and Africa</b>
Canada 5	China 58	Germany 15
Mexico 5	Taiwan 16	United Kingdom 11
Other/Indeterminate 6	Japan 5	Italy 11
	Malaysia 4	Sweden 6
	South Korea 4	France 4
	India 3	Spain 4
	Other 8	Other 9

Table 2: Distribution of sample by region of supplier firm indicated by respondent.

### Measures

Measures of all constructs were developed based on extant literature, primarily Morgan and Hunt (1994, items listed in Appendix 1). Originally, the scales pertaining to the exogenous constructs (relationship benefits, relationship termination costs, shared values, communication, and opportunistic behavior) and endogenous constructs (relationship commitment, trust, acquiescence, cooperation, propensity to leave, functional conflict, and uncertainty) were adopted from Morgan and Hunt (1994). However, industry-specific considerations required some modifications of the scales, as the original instrument used by Morgan and Hunt (listed in the Appendix) was in a retailer-supplier relationship context. Alterations were based on either pretests conducted with purchasing practitioners or, when cited, from the extant literature. The final survey instrument is also in the Appendix. All scales for the



construct variables were replicated from Morgan and Hunt, with the following exceptions (final scale items listed in Appendix 2):

For *communication*, one marketing-specific item from Morgan and Hunt (“In our relationship, my major supplier offers us very poor recognition programs.”) was dropped. Another item, “In our relationship my supplier communicates well his expectations for our firm’s performance,” was changed to “. . . my supplier informs our firm of its expectations in great detail.” For *acquiescence* and *cooperation*, the original Morgan and Hunt scales were too marketing relations-specific to be used for the current sampling frame. Therefore, scales from Cannon and Perreault (1999) for cooperative norms and seller adaptations were used for, respectively, cooperation and acquiescence. In acquiescence, Morgan and Hunt’s original item read, “In the future, my firm will likely comply with the policies that this supplier establishes for the marketing of its products by its distributors.” Cannon and Perreault’s (1999, 437) items for seller adaptations were as follows: “Just for us, this supplier changed its product’s features”; “. . . changed its personnel”; “. . . changed its inventory and distribution”; “. . . changed its marketing”; and “. . . changed its capital equipment and tools.” After pretesting, the wording was changed on a couple of these items. The first was changed to “Just for us, this supplier changed its item’s features.” The second item was altered slightly to “Just for us, this supplier changed its personnel assignments.” Finally, the fourth item was changed to “Just for us, this supplier changed its subcontractor relationships.” For *cooperation*, Morgan and Hunt’s original scale items read, “How would you characterize the cooperation between you and your supplier regarding the following activities: Local/Regional Cooperative

Advertising, Dealer Advertising, Warranty Reimbursements, Dealer Discounts, Inventory Levels.” Cannon and Perreault’s (1999, 447) scale items read, “In this relationship, it is expected that . . . No matter who is at fault, problems are joint responsibilities”; “. . . Both sides are concerned about the other’s profitability”; “. . . One party will not take advantage of a strong bargaining position”; “. . . Both sides are willing to make cooperative changes”; “. . . We must work together to be successful”; “. . . We do not mind owing each other favors.” Only one item was changed: In the second item, “profitability” was changed to “success” after pretesting.

In Morgan and Hunt, the scale items for *relationship benefits* were responses to “If you could not buy your stock from your present major supplier, you would likely be purchasing from some other major supplier (we’ll call this the “alternate supplier”). Please compare your major supplier with this alternate supplier concerning the following items [gross profit provided, gross profit provided by a product line common to both suppliers].” These were changed to reflect given by the supplier in comparison to an alternate supplier, all in response to “Please compare your supplier with an alternate supplier concerning [item cost provided, internal customer service, and product quality].” These were new scale items, each derived from pretesting.

## Chapter 5: Results

### Testing of the Model: Overview

The analyses follow a two-step procedure based partly on a suggested procedure by Anderson and Gerbing (1988). First, a measurement model demonstrating an acceptable fit to the data was developed with confirmatory factor analysis. In the second step, the measurement model was modified to present the theoretical KMV Model.

### The Measurement Model

Based on low factor loadings and internal consistency testing (Fornell and Larcker 1981), items from some of the constructs (commitment, acquiescence, trust, opportunistic behavior, propensity to leave, relationship benefits, and shared values) were dropped and the revised measurement model showed higher goodness-of-fit (based on  $\chi^2$  analysis, Bentler and Bonett's (1980) Non-normed Index, and Bentler's (1989) Comparative Fit Index). Removal of scale items was considered if goodness-of-fit could be improved without a significant loss of internal consistency, or if a scale's internal consistency could be increased without sacrificing goodness-of-fit. In addition, items were retained for conceptual reasons (commitment), to retain a minimum of two items per scale (functional conflict), or to attain convergence for the full measurement model (uncertainty); the details are given in the following section. Convergent validity was assessed based on *t*-statistics given for the factor loadings (Anderson and Gerbring 1988); based on significant *t*-statistics yielded by each factor loading, all constructs in the revised measurement model displayed convergent

validity. Discriminant validity was assessed between all of the paired variables in the measurement model, using confidence interval testing (Anderson and Gerbring 1988, Hatcher, 1994, 337). In confidence interval testing, the discriminant validity of two factors is assessed by determining the confidence interval for the correlation between them. If the confidence interval (of at least  $\pm 2$  standard errors) around the correlation does not include 1.0, then discriminant validity is demonstrated (Anderson and Gerbing, 1988). In all instances, discriminant validity was confirmed. Using this test, all of the paired variables in the measurement model, including pairs with high covariances like commitment-cooperation (.6916), opportunistic behavior-trust (-.886), and trust-cooperation (.764), exhibited discriminant validity.

The statistics for internal consistency and goodness-of-fit (for both the original and purified scales) are summarized in Table 3, and details of the tests follow. The GFI and  $\chi^2$  statistics provide basic measures of goodness-of-fit to test specification of the model; a ratio of  $\chi^2$ /(degrees of freedom) of less than 3.00 generally demonstrates adequate fit, while a GFI greater than .900 is desirable. Most scales (all except acquiescence and communication) had  $\chi^2$ /(degrees of freedom) of greater than 2, even after purification; however, the results for one or both of the other measures of goodness-of-fit (CFI and NNI) were adequate to support the fit of the model to the data. The comparative fit index (CFI) and non-normed index (NNI) are two goodness-of-fit measures that have been demonstrated to be less biased in smaller samples (Bentler 1989). Values over .900 indicate acceptable fit between the model and the data (Hatcher 1994, 291).

After initial purification, a full measurement model including all the variables was constructed. All latent factors were allowed to covary. The full measurement model yielded a  $\chi^2$ /(degrees of freedom) of 28.743/13, a GFI of .951, a CFI of .978, and an NNI of .967; the latter three are adequate figures for assessing a fitness of the model to the data.

Table 3: Statistics for latent variables. Figures for purified scales appear in parentheses, Items marked with a dagger (<sup>†</sup>) beside the factor loading were dropped for scale purification. Items with an asterisk (\*) are reverse-scaled.

	Internal Consistency	Factor Loadings	t-value	Goodness-of-Fit Index	$\chi^2$ -squared/degrees of freedom	Bentler's Comparative Fit Index	Bentler & Bonett's Non-normed Index
<b>ACQUI-ESCENCE</b>	.789 (.819)			.968 (.999)	13.790/5 (.275/2)	.964 (1.000)	.928 (1.023)
Just for us, this supplier changed its item's features		.312 <sup>†</sup>	3.800				
Just for us, this supplier changed its personnel assignments		.626	8.285				
Just for us, this supplier changed its inventory and distribution methods		.713	9.767				
Just for us, this supplier changed its subcontractor relationships		.838	12.015				
Just for us, this supplier changed its capital equipment and tools		.731	10.079				

<b>RELATIONSHIP BENEFITS</b>	.698 (.739)			.979 (.951)	12.053/13 (28.742/13)	1.000 (.978)	1.004 (.967)
Please compare your supplier with [an] alternate supplier concerning: Item cost provided		.421 <sup>†</sup>	4.825				
Please compare your supplier with [an] alternate supplier concerning: Internal customer service		.764	7.361				
Please compare your supplier with [an] alternate supplier concerning: Product quality		.768	7.383				
<b>OPPORTUNISTIC BEHAVIOR</b>	.895 (.902)			.926 (.944)	52.35/20 (33.460/14)	.974 (.981)	.963 (.971)
To accomplish its own objectives, sometimes my supplier alters the facts slightly		.760 <sup>†</sup>	11.313				
To accomplish its own objectives, sometimes my supplier promises to do things without actually doing them later		.908	14.887				
To accomplish its own objectives, sometimes my supplier fails to provide us with the support I would expect		.905	14.813				

<b>COMMITMENT</b>	.866 (.863)			.810 (.983)	105.426/4 (5.897/2)	.825 (.989)	.709 (.967)
The relationship that my firm has with this supplier is something my firm is very committed to		.893	14.252				
The relationship that my firm has with this supplier is very important to my firm		.906	14.574				
The relationship that my firm has with this supplier is something my firm intends to maintain indefinitely		.696	9.913				
The relationship that my firm has with this supplier is of very little significance to my firm		.580* <sup>†</sup>	7.873				
The relationship that my firm has with this supplier is something my firm really cares about		.599 <sup>†</sup>	8.175				
The relationship that my firm has with this supplier deserves my firm's maximum efforts to maintain		.609	8.355				

<b>COMMUNI- CATION</b>	.864 (.856)			.956 (.981)	26.637/13 (10.083/8)	.978 (.996)	.965 (.992)
In our relationship, my supplier keeps my firm informed of new developments		.736 <sup>†</sup>	10.409				
In our relationship, my supplier provides me with frequent feedback on our performance		.876	13.169				
In our relationship, my supplier informs my firm of its expectations in great detail		.855	12.728				



<b>COOPER- ATION</b>	.843			.963	20.153/9	.969	.949
In this relationship it is expected that no matter who is at fault, problems are joint responsibilities		.558	7.376				
In this relationship it is expected that both sides are concerned about the other's success		.819	12.164				
In this relationship it is expected that one party will not take unfair advantage of a strong bargaining position		.687	9.561				
In this relationship it is expected that both sides are willing to make cooperative changes		.756	10.865				
In this relationship it is expected that we must work together to be successful		.724	10.250				
In this relationship it is expected that we do not mind owing each other favors		.557	7.357				

<b>PROPENSITY TO LEAVE</b>	.882 (.940)			.851(.859)	129.925/26 (97.6847/19)	.921(.931)	.891(.898)
What do you think are the chances of your firm terminating this relationship within the next six months?		.621 <sup>†</sup>	8.704				
What do you think are the chances of your firm terminating this relationship within the next one year?		.999	16.557				
What do you think are the chances of your firm terminating this relationship within the next two years?		.882	13.673				

<b>RELATIONSHIP TERMINATION COSTS</b>	.863			.962	16.730/5	.975	.950
I am afraid of what might happen if we severed our relationship with this supplier without having another one lined up		.712	10.506				
Leaving this supplier right now would be very difficult, even if we wanted to		.925	15.445				
Our business would be greatly disrupted if we decided to leave this supplier now		.940	15.861				
It would cost very little for my firm to leave this supplier now		.559*	7.725				
The costs for us to switch to another supplier would be very high at this time		.544	7.479				

<b>SHARED VALUES</b>	.846 (.842)			.963 (.978)	16.656/5 (7.762/2)	.976 (.987)	.952 (.960)
The following questions refer to the degree to which you feel that you [and your supplier] would agree with the following: In order to succeed in this business, it is often necessary to compromise one's ethics		.551* <sup>†</sup>	7.448				
Top management in a business must let it be known in no uncertain terms that unethical behaviors will not be tolerated		.781	11.732				
If an employee is discovered to have engaged in unethical behavior that results primarily in personal gain (rather than corporate gain), he or she should be promptly reprimanded		.890	14.318				

If an employee is discovered to have engaged in unethical behavior that results primarily in corporate gain (rather than personal gain), he or she should be promptly reprimanded		.891	14.337				
Employers should assure that their employees are behaving in a business-like manner		.779	11.677				

<b>TRUST</b>	.944 (.938)			.850 (.958)	81.876/9 (18.624/5)	.924 (.981)	.873 (.963)
In our relationship, my supplier cannot be trusted at times		.789*	12.125				
In our relationship, my supplier is perfectly honest and truthful		.811 <sup>†</sup>	12.633				
In our relationship, my supplier can be trusted completely		.859	13.817				
In our relationship, my supplier can be counted on to do what is right		.923	15.585				
In our relationship, my supplier is a firm that I have great confidence in		.881	14.395				
In our relationship, my supplier has high integrity		.881	14.400				

<b>FUNCTIONAL CONFLICT</b>	.645			.943	34.347/14	.975	.962
In the future, differences of opinion between my supplier and me will probably be viewed as “just a part of doing business”, and will likely result in benefits to both of us		.827	5.520				
Disagreements between my supplier and my firm have increased the productivity of our working relationship		.539	4.732				

UNCERTAINTY	.890 (.889)			.859 (.943)	175.136/27 (41.088/20)	.881 (.980)	.841 (.971)
To what extent do you now have adequate information for making future decisions regarding which products or brands to carry in stock?		.708	10.174				
To what extent do you now have adequate information for making future decisions regarding how much inventory to carry?		.752	11.053				
How confident are you in your ability to make future decisions regarding which products or brands to carry in stock?		.916	14.827				
How confident are you in your ability to make future decisions regarding how much inventory to carry?		.883	13.993				

For *acquiescence*, dropping Cannon and Perrault's (1999) original first item, "... this supplier changed its item's features," yielded the best goodness-of-fit, and increased the internal consistency coefficient for the variable (from .789 to .819). *Relationship benefits* was a new scale created on the basis of pretesting that completely replaced Morgan and Hunt's items. While the original internal consistency of .698 is by convention adequate for a new scale (Churchill 1979), the first item, "Item cost provided," loaded poorly and was dropped, resulting in a higher



internal consistency of .739. *Opportunistic behavior* with all original scale items exhibited high internal consistency (.895) and strong individual loadings, but showed a stronger goodness-of-fit with the first item (“... sometimes my supplier alters the facts slightly”) removed, as well as an increase in internal consistency to .902. In addition, opportunism was compared with *trust* for discriminant validity; since the constructs are conceptually related and opposite, a high correlation among their components may be expected. Using confidence interval testing, the two constructs were found to exhibit discriminant validity, effectively eliminating the chance that respondents may have associated the two constructs in their replies. *Commitment* exhibited the strongest goodness-of-fit with the last three items (“The relationship . . . is of very little significance to my firm;” “. . . is something my firm really cares about;” “. . . deserves my firm’s maximum efforts to maintain”) removed. The last item (“The relationship deserves my firm’s maximum efforts to maintain”), however, was retained due to its conceptual importance (as it contains the definition of commitment as given in Morgan and Hunt) and that the goodness-of-fit remained adequate. *Communication* is another scale slightly modified from Morgan and Hunt due to industry relevance and pretesting. Dropping the first item, “In our relationship, my supplier keeps my firm informed of new developments” yielded an improved goodness-of-fit by all measures despite the significant loading for the first item, and only a marginal decrease of internal consistency (from .864 to .856). *Cooperation* used a scale from Cannon and Perrault (1999) for “cooperative norms,” which was more relevant to the population under study, as Cannon and Perrault also surveyed corporate buyers in their study. Retaining all six factors attained the optimal

goodness-of-fit and internal consistency of .843. *Propensity to leave* yielded a slightly stronger goodness-of-fit by dropping the first item (“. . . the chances of your firm terminating this relationship within the next six months”), which is also conceptually the least relevant as it represents the shortest time horizon. In addition, discriminant validity for propensity to leave versus commitment (the two concepts may be strongly negatively correlated) was tested. Confidence interval testing demonstrated discriminant validity between the two constructs. For *relationship termination costs*, retaining all six items yielded adequate goodness-of-fit, with no marked improvement in internal consistency or goodness-of-fit attained by dropping any of the items. *Shared values* originally demonstrated an internal consistency of .846, but dropping the first and lowest loading item-pair (“In order to succeed . . . it is often necessary to compromise one’s ethics”) increased goodness-of-fit while maintaining internal consistency (.842). *Trust* displayed the highest goodness-of-fit by dropping the second item, “. . . my supplier is perfectly honest and truthful,” although all six original factors loaded well. For *functional conflict*, the second item (“Disagreements . . . have increased the productivity of our working relationship”) exhibited a marginal loading (.539). However, dropping this item yielded no significant improvement in goodness-of-fit by any of the four measures, and the maintaining of a minimum of two items was desirable. *Uncertainty* exhibited strong composite internal consistency and loadings, as well as adequate goodness-of-fit, with all original factors retained. While dropping the first item (“To what extent do you now have adequate information for making future decisions regarding which products or brands to carry in stock?”) would have yielded higher goodness-of-fit with a trade-

off in internal consistency as noted in Table 3, it was necessary to retain the item to achieve convergence in both the full measurement and structural models.

Next, a full measurement model was executed. In the case of one construct, uncertainty, a dropped item resulting from the individual measurement model needed to be retained in order for the full measurement model to converge. The full measurement model yielded adequate measures of fit: a goodness-of-fit index of .751,  $\chi$ -square/degrees of freedom ratio of 1073.301/753, Bentler's CFI of .918, and a Bentler and Bonett's Non-normed Index of .906.

Additional analyses were performed to test for industry effects. The largest industry represented in the data, SIC Number 360 ("Electronic and Other Electrical Equipment and Components, Except Computer Equipment"), had 78 respondents. As such a small sample would not afford a methodologically possible structural equation model, ANOVA was used to test for means differences among the constructs of the conceptual model. The results of the multi-industry analyses failed to reveal any significant differences among the construct means of different industries. It is possible that there are fundamental similarities in building relationships across the industries included in this study, and that different industries develop similar levels of trust, commitment, and their associated outcomes and sources. Although the former is likely, the latter may be more an artifact of the limited sample size of the present study.

#### *Replication of the KMV Model*

Data were analyzed using the SAS System's CALIS procedure. The full structural KMV Model was run in an attempt to replicate Morgan and Hunt's results.

Like Morgan and Hunt (1994, 30), a rival model was tested along the criteria of overall fit, statistically significant parameters, ability to explain variance of outcomes of interest, and parsimony. The rival model proposed only direct relationships between the sources and outcomes, without either of the mediating variables (trust and commitment), and therefore no indirect effects, with trust and commitment themselves as antecedents.

As purified by the above measurement models, the replicated KMV model compared favorably with Morgan and Hunt's original KMV in goodness-of-fit. While a lower GFI was attained (.731 compared to .892 in the original KMV), measures such as  $\chi$ -squared/degrees of freedom ratio (1183.911/797 in the replication versus 140.26/43 in the original KMV) and CFI (.897 vs. .890), as well as the parsimonious NFI (.689 vs. .555), were comparable to the indices of the original KMV Model. The replicated model possessed a non-normed index of .889 (not cited in Morgan and Hunt 1994). Table 4 shows standard deviations, correlations, variances, and covariances for the variables in the analysis. A substantial degree of variance exists within the responses, as indicated by the range of standard deviations (from 0.563 to 1.751).

Figure 3 presents the path coefficients and results of significance testing. Table 5 presents path estimates and other relevant model statistics for the replication, along with the corresponding statistics from Morgan and Hunt (1994) for ease of comparison. Squared multiple correlations are statistics that are produced in structural equation model analyses, and reflect the amount of explanatory power the model has for a particular endogenous variable. They are parallel to R-squared

statistics in regression analyses, and are interpreted similarly. A discussion of the statistics presented follows.

	Std. Dev.	RTC	RB	SV	CM	OB	RC	TR	ACQ	PTL	CP	FC	UNC
RTC	1.751	3.065	0.063	0.026	0.048	0.009	0.294	0.058	0.090	0.150	0.116	0.009	0.031
RB	0.830	0.064	0.689	0.070	0.078	0.044	0.015	0.084	0.108	0.021	0.015	0.035	0.039
SV	1.333	0.004	0.001	1.777	0.323	0.285	0.129	0.292	0.021	0.063	0.325	0.011	0.120
CM	1.035	0.017	0.085	0.197	1.071	0.683	0.584	0.724	0.469	0.343	0.648	0.359	0.269
OB	1.528	0.009	0.043	0.273	0.498	2.334	0.365	0.887	0.293	0.202	0.618	0.229	0.243
RC	0.850	0.246	0.013	0.157	0.456	0.370	0.722	0.507	0.423	0.490	0.015	0.409	0.212
TR	0.563	0.062	0.077	0.252	0.219	0.886	0.510	0.317	0.375	0.238	0.758	0.332	0.155
ACQ	1.280	0.094	0.101	0.014	0.414	0.300	0.420	0.373	1.638	0.343	0.524	0.349	0.023
PTL	1.046	0.095	0.016	0.125	0.207	0.220	0.469	0.251	0.330	1.094	0.402	0.458	0.192
CP	0.568	0.120	0.017	0.262	0.467	0.626	0.691	0.764	0.521	0.409	0.323	0.437	0.120
FC	1.205	0.010	0.037	0.072	0.555	0.230	0.410	0.334	0.350	0.473	0.431	1.451	0.063
UNC	1.074	0.031	0.042	0.106	0.350	0.239	0.211	0.149	0.028	0.195	0.120	0.061	1.154
<i>n</i> = 149													

Table 4: Correlation/Covariance Matrix. Correlations are above the diagonal (shaded); covariances are below the diagonal, and variances are listed on the diagonal.

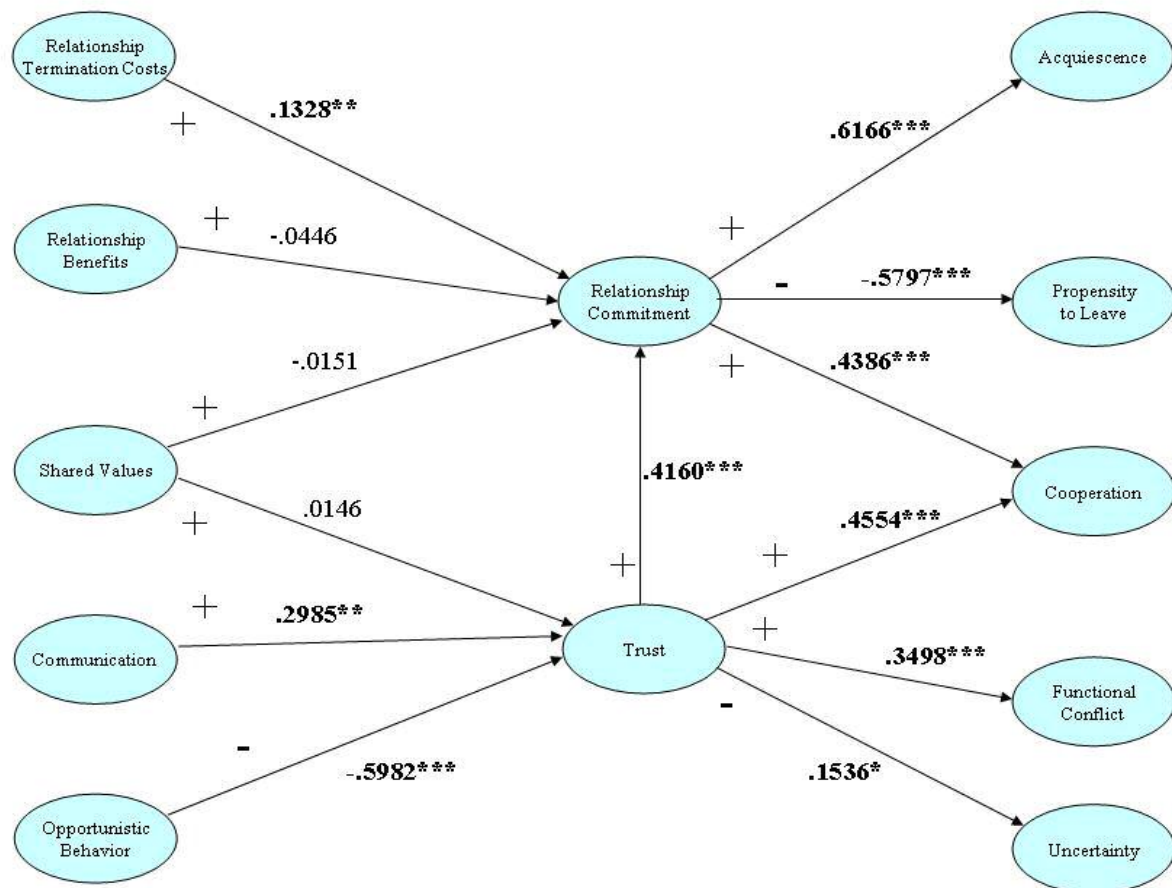


Figure 3: Path coefficients for replicated KMV Model. Significant figures are in bold type.

\* --  $p < .05$

\*\* --  $p < .01$

\*\*\* --  $p < .001$

Note: The coefficient for Trust → Uncertainty is significant, but not in the predicted direction.

<b>Path Estimates</b>	<b>Morgan and Hunt (1994)</b>	<b>Replication</b>
Relationship commitment→Acquiescence	.561***	.617***
Trust→Relationship commitment	.531***	.416***
Relationship benefits→Relationship commitment	-.006	-.045
Relationship termination costs→Relationship commitment	.367***	.133**
Shared values→Relationship commitment	.189**	-.015
Relationship commitment→Cooperation	.252***	.439***
Trust→Cooperation	.507***	.455***
Relationship commitment→Propensity to leave	-.550***	-.580***
Shared values→Trust	.192***	.015
Opportunistic behavior→Trust	-.618***	-.598***
Communication→Trust	.184**	.299**
Trust→Functional conflict	.448***	.350***
Trust→Uncertainty	-.331***	.154*
	* $p < .05$	
	** $p < .01$	
	*** $p < .001$	
<b>Squared multiple correlations</b>		
Trust	.743	.807
Commitment	.552	.317
Acquiescence	.315	.197
Propensity to leave	.302	.245
Cooperation	.481	.716
Functional conflict	.201	.122
Uncertainty	.109	.033
<b>Goodness-of-fit indices</b>		
X-squared/degrees of freedom ratio	3.262	1.493
GFI	0.892	0.731
CFI	0.890	0.897
NNI	N/A	0.889
PNFI	0.555	0.689

Table 5: Summary of analyses of Morgan and Hunt (1994) and replicated KMV models.

## Precursors of Commitment and Trust

For the hypothesized paths from the antecedents to relationship commitment and trust, relationship termination costs → relationship commitment, opportunistic behavior → trust, trust → relationship commitment, and communication → trust were

supported; while shared values → relationship commitment, relationship benefits → relationship commitment, and shared values → trust were not supported.

Consequently, as measured by the squared multiple correlations, relationship commitment in the present analysis compares unfavorably with Morgan and Hunt's sample with regard to how much the direct effects of shared values, relationship termination costs, relationship benefits, and trust and the indirect effects of opportunistic behavior, communication, and shared values explain the variance in relationship commitment (squared multiple correlations (SMCs) of .317 versus .552 in Morgan and Hunt). For trust, however, the explanatory power of the present sample yields comparable SMCs (.807) to Morgan and Hunt (.743).

#### Outcomes of relationship commitment and trust

Except for trust → uncertainty, all of the hypothesized paths leading to the outcomes of developing commitment and trust (relationship commitment → acquiescence, relationship commitment → cooperation, relationship commitment → propensity to leave, trust → cooperation, and trust → functional conflict) were significant, with all significant at greater than the  $p < .001$  level. The absolute values of the standardized estimates of each path ranged from .180 to .545 (mean = .406), which implies that commitment and trust have some weight in the context of these important buyer-supplier outcomes. The SMCs of each outcome demonstrate mixed results in terms of the model explaining their variances: acquiescence = .197; cooperation = .716; propensity to leave = .245; functional conflict = .122; uncertainty = .033. Morgan and Hunt's respective figures for the same outcomes were .315, .481,



.302, .201, and .109. The trust → uncertainty path was indeed significant ( $p < .05$ ); however, it was significant in the opposite direction from the hypothesized one.

## Rival Model

Following Morgan and Hunt's (1994, 30-31) example, a rival model (Figure 4) was compared to the replicated KMV model. As with their comparison, the rival model here is compared with the replicated KMV model based on the criteria of CFI, percentage of hypothesized paths that are statistically significant, explanatory power in terms of variance, and parsimony.

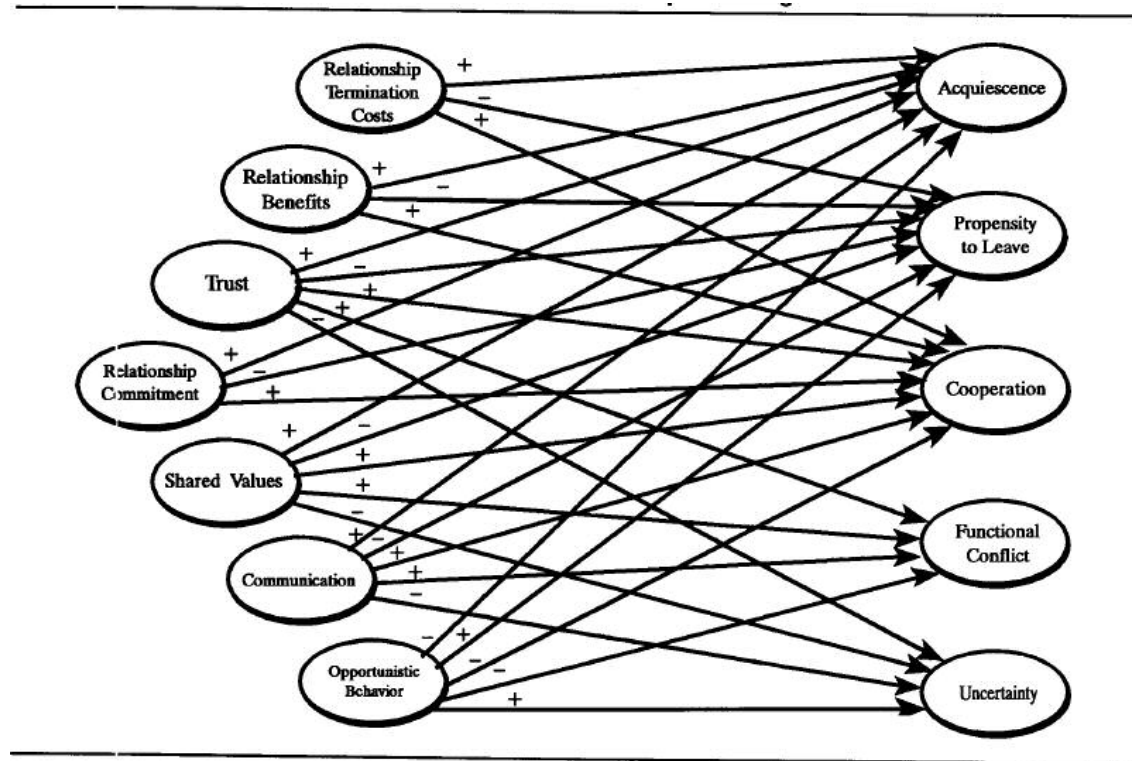


Figure 4: Proposed non-mediated Rival Model to KMV Model (Morgan and Hunt, 1994)

With regard to CFI, the replicated KMV model demonstrated only a slightly stronger goodness-of-fit (.897) compared to the rival model (.871). In addition, the replicated KMV model demonstrated a slightly superior non-normed index (not used

in Morgan and Hunt's analyses) of .889 versus .856 for the rival model. Contrarily, in terms of the percentage of significant relationships ( $p < .05$ ) within the model, the replicated KMV model (9 of 13, or 69.2%, with the same 9 supported at  $p < .01$ ) clearly outperforms the rival model (9 of 29, or 31.0%, with only 5 of its 29 relationships, or 17.2%, supported at  $p < .01$ ). The third criterion, explanation of the variances of the outcomes, is determined by comparing the SMCs of the two models. The rival model SMCs are acquiescence = .208; propensity to leave = .226; cooperation = .649; functional conflict = .215; and uncertainty = .125. The positive increments to SMC in the rival model are .093 (functional conflict) and .092 (uncertainty), and the mean increment only .088 (compared to .058 for Morgan and Hunt).

Table 5: Summary of analyses of replicated KMV and rival models.

Path Estimates	Replication	Rival Model
Relationship commitment→Acquiescence	.617***	.303*
Tust→Relationship commitment	.416***	--
Relationship benefits→Relationship commitment	-.045	--
Relationship termination costs→Relationship commitment	.133**	--
Shared values→Relationship commitment	-.015	--
Relationship commitment→Cooperation	.439***	.369***
Trust→Cooperation	.455***	.651***
Relationship commitment→Propensity to leave	-.580***	-.493***
Shared values→Trust	.015	--
Opportunistic behavior→Trust	-.598***	--
Communication→Trust	.299**	--
Trust→Functional conflict	.350***	.639***
Trust→Uncertainty	.154*	-.322
Relationship benefits→Acquiescence		.099
Opportunistic behavior→Acquiescence		.332
Communication→Acquiescence		.270*
Relationship termination costs→Acquiescence		.004
Shared values→Acquiescence		-.122
Trust→Acquiescence		.521
Relationship benefits→Cooperation		-.093
Opportunistic behavior→Cooperation		.209
Communication→Cooperation		.104
Relationship benefits→Propensity to leave		-.002
Opportunistic behavior→Propensity to leave		-.037
Communication→Propensity to leave		-.128
Relationship termination costs→Propensity to leave		-.021
Shared values→Propensity to leave		-.007
Trust→Propensity to leave		.005
Opportunistic behavior→Functional conflict		.473*
Communication→Functional conflict		.289**
Shared values→Functional conflict		-.002
Opportunistic behavior→uncertainty		-.326
Communication→uncertainty		.155*
	* $p < .05$	
	** $p < .01$	
	*** $p < .001$	

Table 5 continued

<b>Squared multiple correlations</b>	Replication	Rival Model
Trust	.807	--
Commitment	.317	--
Acquiescence	.197	.208
Propensity to leave	.245	.226
Cooperation	.716	.649
Functional conflict	.122	.215
Uncertainty	.033	.125
<b>Goodness-of-fit indices</b>		
X-squared/degrees of freedom ratio	1.493	1.644
GFI	0.731	.720
CFI	0.897	.871
NNI	0.889	.856
PNFI	0.689	.656

The final criterion used for comparing the replicated KMV model with the rival model is parsimony. The KMV Model contains 13 paths, the rival model 29. As Morgan and Hunt noted, CFI does not consider parsimony in measuring goodness-of-fit. The parsimonious normed-fit index (PNFI) provides a suitable goodness-of-fit comparison between models with wide differences in parsimony. Here the replicated KMV model also produces a slight improvement over the rival, with a PNFI of .689 versus .656 for the rival model. By comparison, Morgan and Hunt (1994, 30) produced an improvement in PNFI from .228 (rival model) to .555 (KMV Model).

#### Testing International Effects

The objective of the present research, along with replicating the KMV Model, is to consider the effects of national differences on the buyer-supplier relationship. Differences among suppliers exist, and the possibility of correlation with nationality of the suppliers' locations warrants investigation. Here, the testing for effects related to national differences is discussed.

The first test entailed a replication of the model with a subsample that was culturally “distant” from the sample used for the replication above. The delineation used Kogut and Singh’s (1988, 422) formula for calculating Euclidean “cultural distance” between two cultures. This measure of cultural distance is commonly used to approximate cultural differences between firms based on nationalities, and makes use of weighted variances among Hofstede’s indices of culture. For nations in the sample lacking measures of Hofstede’s indices, four dimensions of Schwartz (1994) that are highly correlated to Hofstede’s four cultural dimensions were used to calculate cultural distance (cf. Kaufmann and Carter forthcoming). Nations that were indeterminate or lacking figures for either Hofstede’s or Schwartz’s scales were excluded.

Indices of cultural distance in the sample ranged from 0.07 to 4.00, and are listed in Table 6, along with the number of suppliers located in each one. The figure of 1.00 was chosen as a cut-off for the subsample to be compared to the replicated KMV Model. While this figure may seem arbitrary, it in fact provides a useful separation for two reasons. First, respondents in the sample whose cultural distance indices were less than 1.00 have suppliers based in either “Anglosphere” countries most similar culturally and politically to the U.S. (the United Kingdom, Canada and, to a lesser extent, South Africa), or based in highly developed G-8 western European countries (Germany, Italy). The lone exception was Malaysia, which has a cultural distance index of 0.94. Those countries above the 1.00 cut-off included a variety of countries from eastern and western Europe, Asia, and Mexico. The second reason for choosing 1.00 as a cut-off is practical, as a higher level would entail reducing the

sample to a size unworkable for running a structural model with twelve constructs. It is for this reason as well, that a structural model with solely respondents *below* the 1.00 cultural distance threshold could not be run.

<u>Country</u>	<u>Power Distance</u>	<u>Uncertainty Avoidance</u>	<u>Individualism</u>	<u>Masculinity</u>	<u>Cultural Distance</u>	<u>n</u>
Canada	39	48	80	52	0.12	3
China	69	8	20	57	3.07	58
Czech Republic	66	112	27	61	3.66	1
Denmark	18	23	74	16	2.02	1
France	68	86	71	43	1.48	4
Germany	35	65	67	66	0.39	15
Hong Kong	68	29	25	57	2.33	1
India	77	40	48	56	1.61	3
Indonesia	78	48	14	46	3.40	1
Israel	13	81	54	47	1.60	1
Italy	50	75	76	70	0.51	11
Japan	54	92	46	95	2.43	5
Malaysia	13	81	91	69	0.94	4
Mexico	81	82	30	69	3.03	5
Netherlands	38	53	80	14	1.60	2
Norway	31	50	69	8	2.18	1
Romania	90	90	30	42	4.00	1
Singapore	74	8	20	48	3.37	2
Slovakia	66	112	27	61	3.66	1
South Korea	60	85	18	39	3.27	4
South Africa	49	49	65	63	0.32	1
Spain	57	86	51	42	1.67	4
Sweden	31	29	71	5	2.47	6
Taiwan	58	69	17	45	2.75	16
Thailand	64	64	20	34	2.99	2
Turkey	66	85	37	45	2.33	1
U.K.	35	35	89	66	0.07	11

Table 6: Dimensions of culture (Hofstede 2001), with cultural distance (Kogut and Singh 1988, Kaufmann and Carter 2005). Right column lists number of respondents' suppliers per country.

The results for the second replication with the more culturally distant subsample are summarized in Figure 5. A comparison of the statistics for each path with their counterparts in Figure 3 gives strong, if preliminary, indication that Morgan

and Hunt's KMV Model displays explanatory power even with a more culturally distinct subsample of buyer-supplier relationships. All of the paths, while on the whole displaying somewhat weaker coefficients in Figure 3, nevertheless are significant in the same relationships, with one exception. In the culturally distant subsample, the Trust → Uncertainty relationship no longer has a statistically significant coefficient.

Given the larger sample size needed to perform a structural equation model analysis on the culturally similar (cultural distance < 1.00) subsample, path analyses were performed to allow for some comparison between the two subsamples. Results of the path analyses for both subsamples are displayed in Figure 6. As regards significant paths, the split-sample analyses largely confirm the generalizability of the KMV Model, even with substantially smaller subsamples: Of the nine supported hypotheses in the replicated, whole-sample KMV Model, eight are supported in both subsamples, with the ninth, relationship termination costs, supported in the more culturally distant subsample (cultural distance index > 1.00 from the U.S.), but not for the culturally similar subsample. Another noteworthy finding is a distinction in the trust→uncertainty relationship. While in the culturally distant sample no significant relationship was determined, in the culturally similar subsample the relationship was significant and positive.

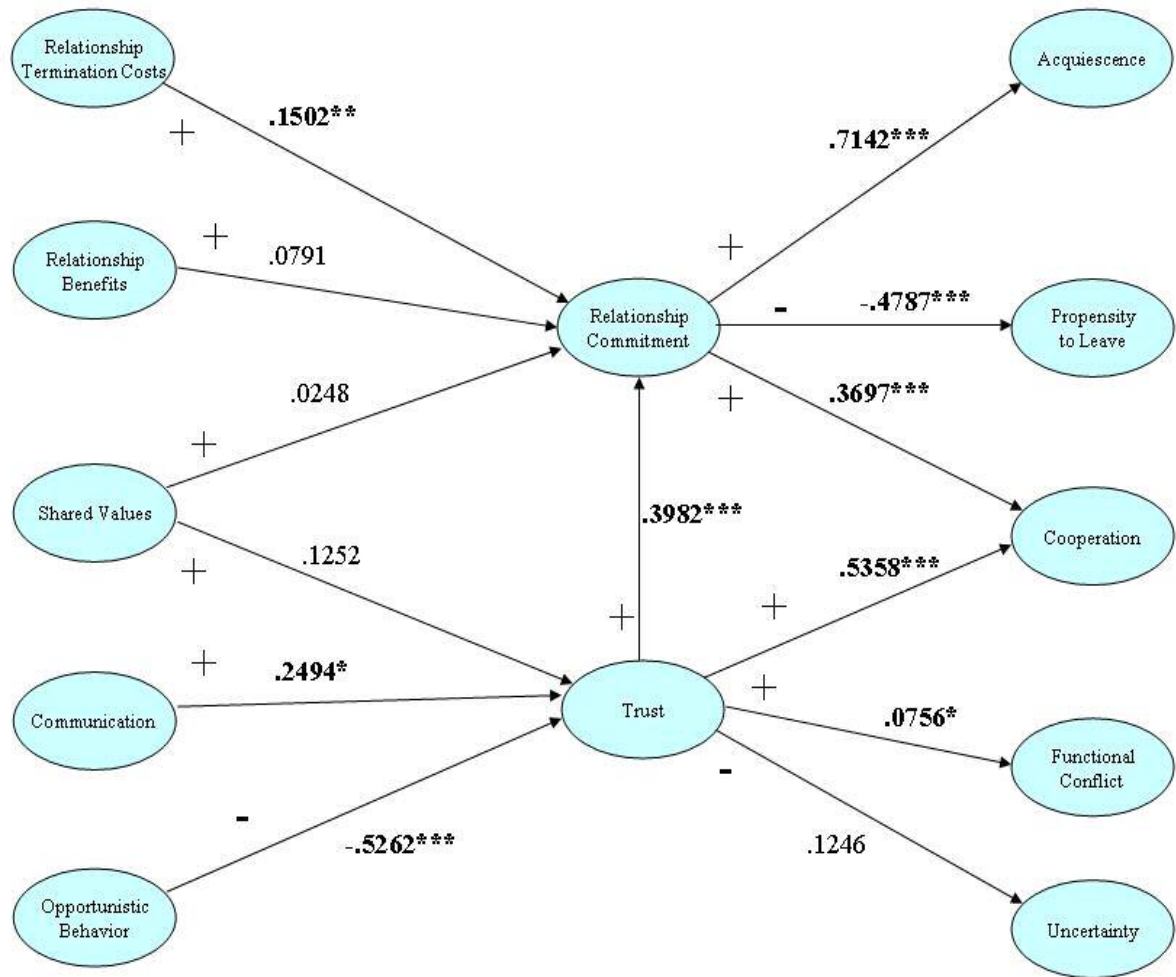


Figure 5: Path coefficients for replicated KMV Model, respondents with suppliers from countries with cultural indices > 1.00 (vs. USA). Significant figures are in bold type.

\* --  $p < .05$

\*\* --  $p < .01$

\*\*\* --  $p < .001$



<b>Path Estimates</b>	<b>Replication</b>	<b>Culturally Distant Subsample (n = 107)</b>
Relationship commitment→Acquiescence	.617***	.714***
Trust→Relationship commitment	.416***	.398***
Relationship benefits→Relationship commitment	-.045	.079
Relationship termination costs→Relationship commitment	.133**	.150**
Shared values→Relationship commitment	-.015	.025
Relationship commitment→Cooperation	.439***	.370***
Trust→Cooperation	.455***	.536***
Relationship commitment→Propensity to leave	-.580***	-.479***
Shared values→Trust	.015	.125
Opportunistic behavior→Trust	-.598***	-.526***
Communication→Trust	.299**	.294*
Trust→Functional conflict	.350***	.076*
Trust→Uncertainty	.154*	.125
	*p < .05	
	**p < .01	
	***p < .001	
<b>Squared multiple correlations</b>		
Trust	.807	.792
Commitment	.317	.386
Acquiescence	.197	.215
Propensity to leave	.245	.175
Cooperation	.716	.682
Functional conflict	.122	.061
Uncertainty	.033	.017
<b>Goodness-of-fit indices</b>		
X-squared/degrees of freedom ratio	1.493	1.440
GFI	0.731	0.679
CFI	0.897	0.872
NNI	0.889	0.861
PNFI	0.689	0.630

Table 7: Comparison of replicated KMV Model with culturally distant subsample.

The results of the split-sample path analyses should be interpreted with caution. Largely owing to the smaller sample sizes, neither path model exhibited strong goodness-of-fit with the data: for cultural distance index >1.00,  $\chi^2$ -squared/degrees of freedom ratio = 93.1117/43; GFI = .8778; CFI = .8752; NNI =

.8085; and for cultural distance index > 1.00,  $\chi$ -squared/degrees of freedom = 62.7884/43; GFI = .8313; CFI = .8766; NNI = .8106. Neither of the path models provides a goodness-of-fit as adequate as either of the structural models.

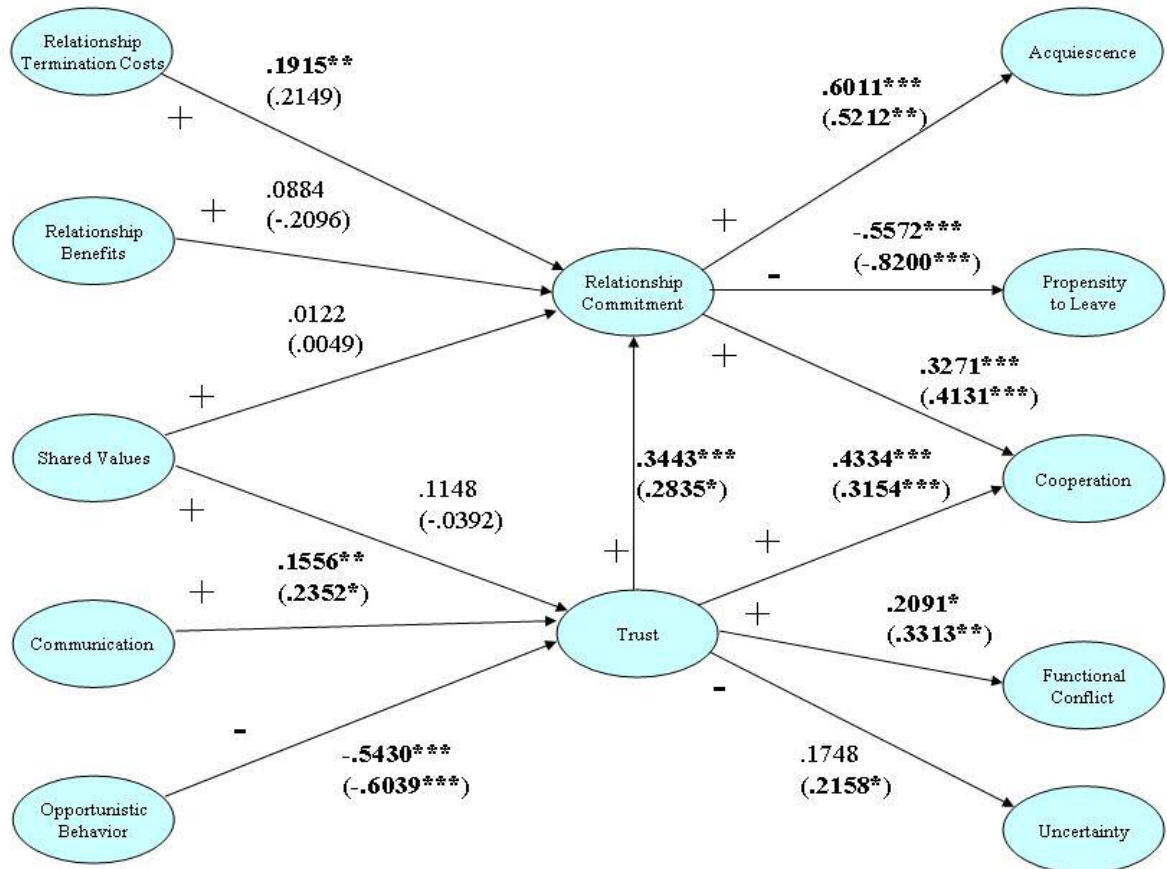


Figure 6: Path coefficients for path analyses with respondents with suppliers from countries with cultural indices > 1.00 (vs. USA), and with cultural indices < 1.00 in parentheses. Significant figures are in bold type.

\* --  $p < .05$

\*\* --  $p < .01$

\*\*\* --  $p < .001$

## Chapter 6: Discussion

The present study presented a successful replication of the KMV Model. However, the results regarding relationships within the model were mixed, and in a few cases differed from Morgan and Hunt (1994). First, the results of the hypotheses are discussed. Next, the replication of Morgan and Hunt's model is considered, with an emphasis on the differences in sampling frames. Discussions of managerial and theoretical implications follow.

Hypothesis 1 was supported. The consideration of switching and search costs for new suppliers is expected to be acute in international sourcing. In many instances, an international supplier relationship exists due to the difficulty or even impossibility of sourcing in the domestic market (Ellram 1991, Monczka and Trent 1992, Petersen, Frayer, and Scannell 2000), indicating that the consequently high termination costs encourage a more committed outlook by buyers toward their relationships.

The structural model did not support Hypothesis 2. It is noteworthy that the relationship between benefits and relationship commitment was also the only insignificant path found in Morgan and Hunt's original KMV Model. While a new scale was adopted for the replicated model, as with Morgan and Hunt the construct was measured comparatively, versus the benefits of a probable alternative supplier. A possible explanation for the lack of support for the hypothesis may be lack of information by some of the respondents about characteristics, or an emphasis on absolute rather than relative levels of benefits (Morgan and Hunt 1994, 32).

Hypotheses 3 and 4 were rejected. It is noteworthy that shared values demonstrated no significant effect on either trust or commitment in the replication.

This result is somewhat surprising, given the emphasis on ethics in the scale. The focus of the scale on ethics may have been too narrow; other values or “norms” (Heide and John 1992, Jap and Ganesan 2000) may have more influence on trust and commitment in the international supply chain context than shared ethical values.

The replicated model supported Hypothesis 5. In an international supply chain relationship, increased average lead times and more complexities in documentation and negotiations increase the need for quality and quantity in communications. Such enhanced communications sustain relationships characterized by mutual support and trust (Mohr and Nevin 1990).

Hypothesis 6 was supported. Opportunistic behavior’s negative relationship to trust was indeed the most significant of all the paths in the replicated model; in Morgan and Hunt’s (1994, 30) original KMV Model, the relationship also exhibited the highest absolute value of any path coefficient (.618). This finding may partially be due to the sample of buyers with international suppliers. In an international context, trust may be more difficult to establish and maintain than with a comparable domestic partner, so perceptions of opportunistic behavior may be even more damaging to trust in the buyer-supplier relationship. In many international buyer-supplier relationships, transparency with regard to information shared between buyer and supplier and about the supplier itself is a common issue, particularly with new suppliers from culturally distant countries (Spekman and Davis 2004). Similarly, Kaufmann and Carter (forthcoming) find a positive relationship between behavioral transparency (a conceptually opposite construct from opportunistic behavior) and

social norms, which include trust, in a sample of internationally sourcing purchasing organizations.

While one relationship was not in the direction hypothesized, all of the relationships among endogenous variables in the model were significant. Hypotheses 7-12 were all supported by the replicated model. Accommodating buyer requests, cooperative behaviors, and a reduced propensity to leave the relationship were demonstrated to be strong effects of commitment in an international buyer-supplier relationship. Similarly, relationship commitment, cooperation, and functional conflict were exhibited as strong outcomes of trust in the replicated KMV Model. Hypothesis 13 was not supported. One of the most interesting findings in the replication is that not only was the hypothesized relationship between trust and uncertainty not supported, but the results displayed a significant ( $p < .05$ ) relationship in the opposite direction (i.e., trust positively affects the level of uncertainty). One possible explanation for this outcome may be the already high level of uncertainty with which the population may be contending, given the higher level of volatility in sourcing internationally.

#### *Applicability of the KMV Model to Other Populations*

Morgan and Hunt's original research provided a useful framework for examining relational marketing. The primary purpose of the present study was to apply the framework in a different population to investigate whether relationships could be characterized similarly. Three primary distinctions existed between the two populations, that examined by Morgan and Hunt and that examined in the current study. First, whereas Morgan and Hunt considered retailers' relationships with their

suppliers, the replication sample was derived from a population of manufacturers prompted to respond concerning their suppliers. A second distinction is that of industry: Morgan and Hunt focused on the tire industry, while the current study considered a population composed of several different industries (fabricated metal products, industrial machinery and equipment, and electronic and other electric equipment). The third important difference between the populations is geographic, and related to the second: Morgan and Hunt's study focused on an industry that, at the retail level, largely sources domestically. In the current study, the population consists entirely of buyers sourcing from outside the U.S.

The first distinction in the replication concerns the stage at which sourcing occurs. Despite this, there are reasons that a successful replication could be expected. Like the population in Morgan and Hunt's original study, industrial buyers similarly operate in a more personal environment, on average, than the typical individual consumer. From the initial sale to future sales and service, many of the interactions between firms may be on a one-to-one basis between contacts, particularly with valuable or unique products. One notable similarity in the results between both Morgan and Hunt (1994) and the replication was the lack of significance in the hypothesized relationship between relationship benefits and relationship commitment. Following Morgan and Hunt's suggestion that future "researchers could address other benefits" (32), the researcher replaced Morgan and Hunt's original items, which concerned aspects of gross profit more important to retailers than manufacturers, with items suggested by pretesters. However, the comparative phrasing of the questions (comparing benefits of the present supplier with an "alternate supplier") was retained.

Despite the changes designed to gauge benefits more relevant to the population, the results did not support the hypothesized relationship.

While Morgan and Hunt focused on one narrow industry, the replication included three different industries. One reason for this selection is related to sourcing, that the industries selected have traditionally relied on significant overseas sourcing (Homburg et al. 2002). The second reason was for purposes of generalizability, insofar as a broadly based replication of the KMV Model can build on the foundation laid by the initial, theoretical testing of the model that was the aim of Morgan and Hunt in their study (28). While several of the hypothesized relationships in the replicated model were not supported by the results, the overall fit of the model suggests that generalizability of the KMV Model may not be the main reason for the lack of significance in these relationships.

The third distinction between the populations, that of the composition of their respective supply bases, is also worth considering with regard to the results. As discussed previously, in the replicated model the hypothesized relationships concerning the outcomes received an overall higher level of support in the results than those concerning the sources of trust and commitment. This trend parallels to some degree the findings of Morgan and Hunt in the original KMV Model testing. With regard to one of the outcomes, decision-making uncertainty (the lone outcome of trust and commitment not supported by the replicated model in the hypothesized direction), Morgan and Hunt note that it was explained by the lowest amount of variance of any of the constructs in the model (32). As in Morgan and Hunt's results, uncertainty had the lowest amount of variance (3.3%) explained of any construct, so

the international sourcing environment in which the population operates may not only be more dynamic and complex than that studied by Morgan and Hunt, but the results suggest that there may be more uncertainty than even trust can significantly alleviate. The finding of no significant relationship in the culturally “distant” subsample presents another question. Why does trust promote cooperation and functional conflict among these suppliers, but not reduced uncertainty?

### Managerial Implications

The findings hold important implications for professionals in the field of supply chain management. First, in the hypotheses *not* supported by the replicated model, there may be lessons for supply chain managers. The finding of a lack of significance between relationship benefits and commitment may be indicative of a particular perspective in forming buyer-supplier relationships. Given that the whole relational marketing paradigm is rooted in the concept of partners reorienting themselves from a “me-first” to an “us-first” outlook, the trend toward moving from transactions to partnerships may provide an explanation for the limited contribution that the relationship benefits construct demonstrates in the model. A possible explanation is that benefits are a more significant consideration at the initiation of the relationship, than a consideration for maintaining the relationship. While the scale used in the model attempted to encompass not only item cost but also quality and customer service, further replication of the new scale may provide more insight as to the most important benefits sought from a relationship by buyers. Shared values was the other exogenous construct not found to have a significant relationship with trust or commitment in the replicated model. This lack of a significant relationship may be



due to the nature of the buyer-supplier relationship, particularly where the partners are from different industries. From the supply chain practitioner's perspective, the quality of the outcome (i.e., the product) is often paramount, and may overshadow considerations of the perceived values of the supplier, particularly if that supplier is located in a country distant in both culture and geography. The findings indicate no halo effect between perceived similarities in ethical values and the commitment of respondents to the relationship, and suggest that supply chain professionals can realize benefits from a relationship without feeling an affinity in organizational culture. The contrary finding of a positive relationship between trust and uncertainty may be influenced by the greater prevalence of contractual devices in international sourcing. Given that uncertainty itself reflects limited knowledge about future conditions owing to a complex and dynamic environment, the phenomenon may reflect that respondents most knowledgeable about the untrustworthiness of their partners are also most knowledgeable about the future. In addition, the model explained little of the uncertainty in the data (3.3%), which itself may reflect the volatility of sourcing internationally today. Here, the primary lesson for practitioners would be to focus on aspects of international sourcing over which some control is possible (i.e., behaviors in the relationship: the other four outcomes of trust and commitment) and not expect even the best of relationships to meet every contingency in the future, particularly the distant future.

A second consideration for practitioners lies in the international dimension of the findings. When tested in the subsample of respondents whose suppliers are culturally distant, the structural model supported the same hypotheses as the model

for the whole sample. For supply chain managers, it is a demonstration that hallmarks of successful long-term relationships are common in a variety of cultures dissimilar to the United States. In the subsample of respondents with suppliers based in countries culturally “close” to the United States, a path analysis found support for the same hypotheses as did the structural model for the entire sample, with the exception of relationship termination costs. This may reflect greater knowledge by supply chain professionals of their suppliers in culturally similar countries, most of which are relatively well-developed and known in the United States. In such countries, there may be a larger base of potential alternative suppliers available to buyers, which would reduce relationship termination costs as a driver of commitment to the relationship. The slightly higher average level of relationship termination costs in the culturally “distant” subsample (5.331 versus 4.911 for the culturally “similar” subsample) suggests that this may be the case.

### *Theoretical Implications*

The findings support the external validity of the KMV Model in all three concepts: statistical generalizability, conceptual replicability, and realism (Lynch 1982). While statistical generalizability cannot be extended beyond the scope of the study, the findings suggest that extending application of the KMV to other populations will provide useful avenues for future research. The successful replication of the KMV Model also supports the conceptual replicability of Morgan and Hunt’s model, and indicates that the theory can predict behaviors in different types of relationships in other industries. The use of key informants and pretesting

for the sample lends a small amount of support to the realism of the KMV Model; however, the supplementing of future replications with case studies will extend the realism dimension of external validity further and more definitively.

Further conclusions can be drawn with regard to specific scales. Original Morgan and Hunt scale items for relationship benefits, cooperation, and acquiescence were changed to reflect the different concerns of supply chain professionals in the respondent buyer organizations. The scale items for these three constructs used in the replicated model (cooperation and acquiescence from Cannon and Perrault 1999, and relationship benefits as a new scale) more specifically relate to the supply chain relationship (as opposed to marketing in Morgan and Hunt) demonstrated reliability and convergent validity, although in the case of relationship benefits it is indeterminate without further replication as to whether external validity is established. The ability of the KMV Model to display replicability with these changes in construct measurement is encouraging to the development of theory regarding trust, commitment, and their sources and outcomes.

The study also supported the relevance of the KMV Model to relationships in which the buyer and supplier were based in different cultures, thus enhancing the nomological validity of Morgan and Hunt's model. Of particular importance was that nine of the thirteen hypotheses were supported in the whole sample, consisting of respondents sourcing from over twenty countries of a variety of cultures. When testing for differences among those national cultures, eight of the nine hypotheses remained supported for both culturally similar and dissimilar countries, with the

ninth, relationship termination costs only rejected for the culturally similar subsample.

## Chapter 7: Conclusion

This study tested the generalizability of the Key Mediating Variable Model as proposed by Morgan and Hunt by replicating the structural model with a different population. The nature of relational marketing was revisited, emphasizing the benefits firms can receive through long-term relationships with partner firms. Noting that effective cooperative relationships are vital to firm success, a review of the sources and aspects of those relationships was presented. Central to those sources are relationship commitment and trust, two variables proposed as essential to positive qualitative outcomes in successful buyer-supplier relationships. The present research found evidence that the KMV Model is applicable to many firms that source globally in various industries in demonstrating that commitment and trust lead to beneficial and long-lasting buyer-supplier relationships.

With regard to the sources of trust and commitment, the findings provide important implications for practitioners in purchasing. From a managerial perspective, the findings suggest that purchasing managers should devote time and resources to reducing opportunistic behavior and enhancing communication in their relational exchanges, rather than focusing on shared values or relationship benefits. While these latter constructs may be important, they appear to be significantly less important as compared to reducing opportunistic behavior and increasing communication. In addition, relationship termination costs may be seen as less a deterrent to relationship formation and more as a source of a committed, long-term, beneficial relationship.

### Directions for Future Research

While the present study is itself an extension of previous research, the KMV Model and the nature of the population offer many directions in which to expand further. The first direction concerns the measurement of the constructs themselves, a matter on which Morgan and Hunt also commented (32). The replication already sought to confirm the KMV Model with changes in the measures of some of the constructs (e.g., scale items measuring relationship benefits, acquiescence, cooperation), of which a few proved to be useful and still hold up well in terms of variance and explanatory power. Nevertheless, additional measurements can be sought. Is it possible that more conventional supply chain performance measures hold relationships with the behavioral constructs in the KMV Model. For example, may common purchasing measures or metrics such as contract length, quality certifications, monitoring, and contracts with alternate suppliers be related to trust or commitment?

Related to the previous question is the matter of performance. For supply chain management professionals, the KMV Model can demonstrate additional usefulness if the behavioral outcomes are compared with traditional performance measures (e.g., fill rate, lead time, response time) to ascertain more quantifiable benefits to a well-maintained buyer-supplier relationship. Such investigation would provide practitioners further evidence to recognize relational benefits that are more long-term and are not always immediately discernable to “the bottom line.”

The replication studied a population that sources from a wide variety of countries for products both common and critical. While most of the constructs

endured as reliable and valid measures in the replication, others seemed to be less so, certainly less accurate as predictors or effects of other constructs in the model. One possible explanation may be the effects of culture. For example, while there may be on the part of an American buyer little perception of shared values in a relationship with a Singaporean supplier (especially one with whom there has been no face-to-face contact), there nevertheless may be a longstanding relationship than can be characterized as committed and trusting between them and their respective firms.

In addition, with the broad international supply base of the population sampled for the replication there may be a source of variation within the results of each of the constructs themselves. Do certain types of cultures lend themselves to developing and maintaining longer and higher quality relationships? While suppliers based in, say, China may have obvious attractiveness on the basis of cost, are there cultural traits that may make such relationships easier to maintain as well, or do they make the relationships less attractive from a non-pecuniary standpoint? Are certain cultures engrained with values or behaviors that incline them to be more (for example) acquiescent to business partner requests? An investigation that incorporates a data set including the national composition of suppliers and common measures for gauging cultural differences would provide useful insight into buyer-supplier relationships that cross cultural as well as political boundaries.

Another means of building on the research stream would be in the populations studied. A replication involving buyers from other countries would bolster the generalizability of the KMV Model further. Giving due allowance to time and financial constraints, future research incorporating dyads wherein both buyer and

supplier perspectives are treated would enhance the body of relational marketing research further. Finally, more in-depth research such as interviews or case studies can cast light on the unusual findings from this study, for example the positive relationship between trust and uncertainty in the sample.

### Limitations

As with all cross-sectional studies like the present one, demonstrating causality is more difficult without the benefit of time. However, due to the constraints of time common to most research of this nature, a longitudinal design was not feasible. Where possible, this research can benefit from a longitudinal study for further confirmation of the findings. Several of the constructs studied (e.g., commitment, propensity to leave, decision-making uncertainty) are inherently temporal in their conceptualization. In the case of propensity to leave, the operationalization itself has a temporal dimension. The true gauge of several of these factors, and ultimately the attractiveness of the relationship itself, is whether the relationship still exists several months, or years, later.

A second limitation rests in the sampling frame. While attempts were made to limit bias (by having the population include three industries and randomly assigning questionnaires concerning either a “very important” or “moderately important” supplier to the respondents), other biases may nevertheless have been present. For example, that the questionnaire was only directed at firms that source internationally may have excluded some segments of the investigated industries, such as contract suppliers to the U.S. federal government that are required by procurement guidelines to purchase from domestic firms.





## Appendices

### *Appendix 1: Scale Items, Morgan and Hunt 1994 Appendix 2: Scale Items, Morris*

2005

#### Exogenous Constructs

Construct <sup>a</sup>	Indicator	Item
Relationship Benefits <sup>b</sup>	RS1	If you could not buy your stock from your present major supplier, you would likely be purchasing from some other major supplier (we'll call this the "alternate supplier"). Please compare your major supplier with this alternate supplier concerning the following items: (anchors: Present supplier is much better/Present supplier is much worse)
	RS2	
	RS3	
	RS4	
Relationship Termination Costs	RD1	I am afraid of what might happen if we severed our relationship with this supplier without having another one lined up. Leaving this supplier right now would be very difficult, even if we wanted to. Our business would be greatly disrupted if we decided we wanted to leave this supplier now. It would cost very little for my firm to leave this supplier now. The costs for us to switch to another supplier would be very high at this time.
	RD2	
	RD3	
	RD4 <sup>c</sup>	
	RD5	
Shared Values	SV1 <sup>c</sup>	Please indicate the degree to which you feel that (1) your supplier would agree with the following statements, and (2) you would agree with the following statements: (two part question, anchors: Strongly agree/Strongly disagree) In order to succeed in this business, it is often necessary to compromise one's ethics. Top management in a business must let it be known in no uncertain terms that unethical behaviors will not be tolerated. If an employee is discovered to have engaged in unethical behavior that results primarily in <b>personal gain</b> (rather than corporate gain), he or she should be promptly reprimanded. If an employee is discovered to have engaged in unethical behavior that results primarily in <b>corporate gain</b> (rather than personal gain), he or she should be promptly reprimanded. Employers should assure that their employees are behaving in a business-like manner.
	SV2	
	SV3	
	SV4	
	SV5	
Communication <sup>b</sup>	CM1	In our relationship, my major supplier: (anchors: Strongly agree/Strongly disagree) (a) ...keeps us informed of new developments. (b) ...provides us with frequent positive feedback on our performance. (c) ...offers us very poor recognition programs. (d) ...communicates well his expectations for our firm's performance.
	CM2	
	CM3 <sup>c</sup>	
	CM4	
Opportunistic Behavior <sup>b</sup>	OB1	To accomplish his own objectives, sometimes my supplier: (anchors: Strongly agree/Strongly disagree) (a) ...alters the facts slightly. (b) ...promises to do things without actually doing them later. (c) ...fails to provide us with the support that he is obligated to.
	OB2	
	OB3	

<sup>a</sup> All measures employ 7-point scales.

<sup>b</sup> Indicator is a summate of the items shown.

<sup>c</sup> Item was reverse-scored.

## Endogenous Constructs

Construct <sup>a</sup>	Indicator	Item
Relationship Commitment	RC1	The relationship that my firm has with my major supplier: (anchors: Strongly agree/Strongly disagree)
	RC2	...is something we are very committed to.
	RC3 <sup>b</sup>	...is very important to my firm.
	RC4	...is of very little significance to us.
	RC5	...is something my firm intends to maintain indefinitely.
	RC6	...is very much like being family.
	RC7	...is something my firm really cares about.
Trust		...deserves our firm's maximum effort to maintain.
		In our relationship, my major supplier: (anchors: Strongly agree/Strongly disagree)
	TR1 <sup>b</sup>	...cannot be trusted at times.
	TR2	...is perfectly honest and truthful.
	TR3	...can be trusted completely.
	TR4	...can be counted on to do what is right.
	TR5	...is always faithful.
Acquiescence	TR6	...is someone that I have great confidence in.
	TR7	...has high integrity.
Cooperation <sup>d</sup>		(anchors: Strongly disagree/Strongly agree)
	AQ1	In the future, my firm will likely comply with the policies that this supplier establishes for the marketing of its products by its distributors.
Propensity to Leave <sup>c</sup>		How would you characterize the cooperation between you and your supplier regarding the following activities? (anchors: Not at all cooperative/Very cooperative)
	CP1	(a) Local/Regional Cooperative Advertising
	CP2	(b) Dealer Advertising
	CP3	(c) Warranty Reimbursements
	CP4	(d) Dealer Discounts
	CP5	(e) Inventory levels
Functional Conflict <sup>d</sup>		What do you think are the chances of your firm terminating this relationship... (anchors: Very high/Very low)
	PL1	(a) ...within the next six months?
	PL2	(b) ...within the next one year?
Uncertainty <sup>d</sup>	PL3	(c) ...within the next two years?
		(anchors: Strongly agree/Strongly disagree)
	FC1	In the future, differences of opinion between my supplier and me will probably be viewed as "just a part of doing business," and will likely result in benefits to both of us.
	FC2	In the future, disagreements with my supplier will be more constructive, dialogue, rather than fighting.
		To what extent do you now have adequate information for making future decisions regarding: (information is very adequate/information is very inadequate)
	UN1	(a) The amount you should spend on local sales promotions and advertising?
	UN2	(b) How sales promotions and advertising dollars should be spent?
		How confident are you in your ability to make future decisions regarding: (I have complete confidence/I have no confidence)
	UN3	(c) The amount you should spend on local sales promotions and advertising?
	UN4	(d) How sales promotions and advertising dollars should be spent?
	UN5	To what extent do you now have adequate information for making future decisions regarding: (information is very adequate/information is very inadequate)
	UN6	(a) Which products or brands to carry in stock?
	UN7	(b) How much inventory to carry?
		(c) Which products or brands should be the focus of your sales efforts?
	UN8	How confident are you in your ability to make future decisions regarding: (I have complete confidence/I have no confidence)
	UN9	(a) Which products or brands to carry in stock?
	UN10	(b) How much inventory to carry?
		(c) Which products or brands should be the focus of your sales efforts?

<sup>a</sup> All measures employ 7-point scales.

<sup>b</sup> Item was reverse-scored.

<sup>c</sup> The Propensity to Leave indicator is a summate of the three weighted items. Item (a) is weighted four times the reverse-scored response. Item (b) is weighted twice the reverse-scored response. Item (c) is simply the reverse scored response.

<sup>d</sup> Indicator is a summate of the items shown.



## References

- Achrol, Ravi S., and Louis W. Stern. 1988. "Environmental Determinants of Decision-Making Uncertainty in Marketing Channels." *Journal of Marketing Research* 25 (February): 36-50.
- Akaah, Ishmael P. 1990. "Attitudes of marketing professionals toward ethics in marketing research: a cross-national comparison." *Journal of Business Ethics* 9: 45-53.
- Anderson, Erin. 1989. "The use of Pledges to Build and Sustain Commitment in Distribution Channels." *Journal of Marketing Research* 29 (February): 18-34.
- Anderson, Erin, and Barton Weitz. 1989. "Determinants of Continuity in Conventional Industrial Channel Dyads." 8 *Marketing Science* 4 (Fall): 310-323.
- \_\_\_\_\_, and \_\_\_\_\_. 1992. "The Use of Pledges to Build and Sustain Commitment in Distribution Channels." *Journal of Marketing Research* 29 (February): 18-34.
- Anderson, Erin, Leonard M. Lodish and Barton A. Weitz. 1987. "Resource Allocation Behavior in Conventional Channels." *Journal of Marketing Research* 24 (February): 85-97.
- Anderson, J. C., and D. W. Gerbing. 1988. "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach." 103 *Psychological Bulletin* 411-23.
- Anderson, James C. 1995. "Relationships in Business Markets: Exchange Episodes, Value Creation, and Their Empirical Assessment." 23 *Journal of the Academy of Marketing Science* 4 (Fall): 346-50.
- Anderson, James C., and James A. Narus. 1990. "A Model of Distributor Firm and Manufacturer Firm Working Partnerships." *Journal of Marketing* 54 (January): 42-58.
- Ariño, Africa, José de la Torre and Peter Smith Ring. 2001. "Relational Quality: Managing Trust in Corporate Alliances." 44 *California Management Review* 1 (Fall): 109-31.
- Arndt, Johan. 1983. "The Political Economy Paradigm: Foundation for Theory Building in Marketing." *Journal of Marketing* 47 (Fall): 44-54.

- Armstrong, J. S., and T. S. Overton. 1977. "Estimating Nonresponse Bias in Mail Surveys." 14 *Journal of Marketing research* 3: 396-400.
- Assael, Henry. 1969. "Constructive Role of Interorganizational Conflict." *Administrative Science Quarterly* 14 (December): 573-82.
- Bell, Geoffrey G., Robert J. Oppenheimer and Andre Bastien. 2002. "Trust Deterioration in an International Buyer-Supplier Relationship." *Journal of Business Ethics* 36: 65-78.
- Bello, Daniel C., and David I. Gilliland. 1997. "The Effect of Output Controls, Process Controls, and Flexibility on Export Channel Performance." *Journal of Marketing* 61 (January): 22-38.
- Bentler, P. M. 1989. *EQS structural equations program manual*. Los Angeles: BMDP Statistical Software.
- \_\_\_\_\_, and Bonett, D. G. 1980. "Significance tests and goodness-of-fit in the analysis of covariance structures." *Psychological Bulletin* 88: 588-606.
- Bhattacharya, Rajeev, Timothy M. Devinney and Madan M. Pillutla. 1998. "A Formal Model of Trust Based on Outcomes." 23 *Academy of Management review* 3: 459-72.
- Birou, Laura M., and Stanley E. Fawcett. 1993. "International Purchasing: Benefits, Requirements, and Challenges." *International Journal of Purchasing and Materials Management* (Spring): 28-37.
- Blau, Peter M. 1964. *Exchange and Power in Social Life*. New York: John Wiley & Sons.
- Bowersox, Donald J., M. Bixby Cooper, Douglas Lambert, and Donald A. Taylor. 1980. *Management in Marketing Channels*. New York: McGraw-Hill Book Company.
- Bowersox, Donald J., Patricia J. Daugherty, Cornelia L. Dröge, Dale S. Rogers, and Daniel L. Wardlow. 1989. *Leading Edge Logistics: Competitive Positioning for the 1990's*. Chicago: Council of Logistics Management.
- Brown, James R., Chekitan S. Dev, and Dong-Jin Lee. 2000. "Managing Marketing Channel Opportunism: The Efficacy of Alternative Governance Mechanisms." *Journal of Marketing* 64 (April): 51-65.
- Buchanan, Lauranne. 1992. "Vertical Trade Relationships: The Role of Dependence and Symmetry in Attaining Organizational Goals." *Journal of Marketing Research* 29 (February): 65-75.

- Bucklin, Louis P., and Sanjit Sengupta. 1993. "Organizing Successful Co-Marketing Alliances." *Journal of Marketing* 57 (April): 32-46.
- Buvik, Arnt, and George John. 2000. "When Does Vertical Coordination Improve Industrial Purchasing Relationships?" *Journal of Marketing* 64 (October): 52-64.
- Cannon, Joseph P., and Christian Homburg. 2001. "Buyer-Supplier Relationships and Firm Costs." *Journal of Marketing* 65 (January): 29-43.
- Cannon, Joseph P., and William D. Perrault Jr. 1999. "Buyer-Seller Relationships in Business Markets," *Journal of Marketing Research* 36 (November): 439-60.
- Chaudhuri, Arjun., and Morris B. Holbrook. 2001. "The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty." *Journal of Marketing* 65 (April): 81-93.
- Chen, Chao C., Xiao-Peng Chen, and James R. Meindl. 1998. "How can Cooperation Be Fostered? The Cultural Effects of Individualism-Collectivism," 23 *Academy of Management Review* 2: 285-304.
- Choi, Chong Ju, Soo Hee Lee and Jai Boem Kim. 1999. "A Note on Countertrade: Contractual Uncertainty and Transaction Governance in Emerging Economies." 30 *Journal of International Business Studies* 1: 189-202.
- Churchill, G.A., Jr. 1979. "A Paradigm for Developing Better Measures of Marketing Constructs," 16 *Journal of Marketing Research* 1: 64-73.
- Coase, R. 1937. "The contractual nature of the firm." *Economica* 4: 386-405.
- Cook, Karen S., and Richard M. Emerson. 1978. "Power, Equity and Commitment in Exchange Networks." *American Sociological Review* 43 (October): 721-39.
- Daugherty, Patricia J., Matthew B. Meyers and R. Glenn Richey. 2002. "Information Support for reverse Logistics: The Influence of Relationship Commitment." 23 *Journal of Business Logistics* 1: 85-106.
- Deshpandé, Rohit, John U. Farley and Frederick E. Webster Jr. 1993. "Corporate Culture, customer orientation, and innovativeness," *Journal of Marketing* 57 (January): 23.
- Deutsch, Morton. 1969. "Conflicts: Productive and Destructive." 25 *Journal of Social Issues* 1: 7-41.

- Dillman, Don A. 2000. *Mail and Internet Surveys: The Tailored Design Method*. New York: John Wiley & Sons, Inc.
- Doney, Patricia M., and Joseph P. Cannon. 1997. "An Examination of the Nature of Trust in Buyer-Supplier Relationships." *Journal of Marketing* 61 (April): 35-51.
- Doney, Patricia M., Joseph P. Cannon and Michael R. Mullen. 1998. "Understanding the Influence of National Culture on the Development of Trust." *23 Academy of Management Review* 3: 601-620.
- Duncan, Robert B. 1972. "Characteristics of Organizational Environments and Perceived Environmental Uncertainty." *Administrative Science Quarterly* 20 (September): 313-27.
- Dwyer, F. Robert, Paul H. Schurr, and Sejo Oh. 1987. "Developing Buyer-Supplier Relationships." *Journal of Marketing* 51 (April): 11-27.
- Ellram, Lisa M. 1991. "Key Success Factors and Barriers in International Purchasing Partnerships." *29 Management Decision* 7: 38-44.
- Enz, Cathy A. 1988. "The role of Value Congruence in Intraorganizational Power." *Administrative Science Quarterly* 33: 284-304.
- Fornell, C. and D. Larcker. 1981. "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," 18 *Journal of Marketing Research* 1: 39-50.
- Frazier, Gary L. 1983. "Interorganizational Exchange Behavior in Marketing Channels: A Broadened Perspective." *Journal of Marketing* 47 (Fall): 68-78.
- Frear, Carl R., Lynn E. Metcalf and Mary S. Alguire. 1992. "Offshore Sourcing: Its Nature and Scope." *International Journal of Purchasing and Materials Management* (Summer): 2-11.
- Friman, Margareta, Tommy Gärling, Bruce Millett, Jan Mattsson and Robert Johnston. 2002. "An analysis of international business-to-business relationships based on the Commitment-Trust theory." *Industrial Marketing Management* 31: 403-09.
- Ganesan, Shankar. 1994. "Determinants of Long-Term Orientation in Buyer-Seller Relationships." *Journal of Marketing* 58 (April): 1-19.
- Gannon, Martin J. 2001. *Understanding Global Cultures: Metaphorical Journeys Through 23 Nations*. Thousand Oaks, Ca.: Sage Publications, Inc.



- Garbarino, Ellen, and Mark S. Johnson. 1999. "The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationships." *Journal of Marketing* 63 (April): 70-87.
- Geyskens, Inge, Jan-Benedict E.M. Steenkamp, and Nirmalya Kumar. 1999. "A Meta-Analysis of Satisfaction in Marketing Channel Relationships." *Journal of Marketing Research* 36 (May): 223-238.
- Graham, John L. 1988. "Deference Given the Buyer: Variations across Twelve Cultures." In: F. J Contractor and P. Lorange (Eds.). *Cooperative Strategies in International Business* (pp. 473-85). Lexington, MA:Lexington Books.
- Grewal, Rajdeep, and Ravi Dharwadkar. 2002. "The Role of the Institutional Environment in Marketing Channels." *Journal of Marketing* 66 (July): 82-97.
- Gundlach, Gregory T., Ravi S. Achrol and John T. Mentzer. 1995. "The Structure of Commitment in Exchange" *Journal of Marketing* 59 (January): 78-92.
- Hart, Oliver. 1989. "An economist's perspective on the theory of the firm." *Columbia Law Review* 89 (November): 1757-.
- Hatcher, Larry. 1994. *A Step-by-Step Approach to Using the SAS® System for Factor Analysis and Structural Equation Modeling*. Cary, NC: SAS Institute, Inc.
- Heide, Jan B. 1994. "Interorganizational Governance in Marketing Channels." *Journal of Marketing* 58 (April): 71-85.
- \_\_\_\_\_. 1988. "The Role of Dependence Balancing in Safeguarding Transaction-Specific Assets in Conventional Channels." *Journal of Marketing* 52 (January): 20-35.
- Heide, Jan B., and George John. 1994. "Do Norms Matter in Marketing Relationships?" *Journal of Marketing* 56 (April): 32-44.
- Hewett, Kelly, and William O. Bearden. 2001. "Dependence, Trust, and Relational Behavior on the Part of Foreign Subsidiary Marketing Operations: Implications for Managing Global Marketing Operations." *Journal of Marketing* 65 (October): 51-66.
- Hill, Charles W. L. 1990. "Cooperation, Opportunism, and the Invisible Hand: Implications for Transaction Cost Theory." *Academy of Management Review* 15: 500-13.

- Hofstede, Geert. 2001. *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*. Thousand Oaks, CA: Sage Publications.
- Hofstede, Geert, Bram Neuijen, Denise Daval Ohavy, and Geert Sanders. 1990. "Measuring Organizational Cultures: A Qualitative and Quantitative Study across Twenty Cases." *Administrative Science Quarterly* 35: 286-316.
- Holm, Desirée Blankenburg, Kent Eriksson and Jan Johanson. 1996. "Business Networks and Cooperation in International Business Relationships." *Journal of International Business Studies*: 1033-53.
- Homberg, Christian, Harley Krohmer, Joseph P. Cannon, and Ingo Kiedaisch. 2002. "Customer Satisfaction in Transnational Buyer-Supplier Relationships." 10 *Journal of International Marketing* 4: 1-29.
- Houston, Franklin S., and Julie B. Gassenheimer. 1987. "Marketing and Exchange." *Journal of Marketing* 51 (October): 3-18.
- Inkpen, Andrew C., and Jerry Ross. 2001. "Why do Some Strategic Alliances Persist Beyond Their Useful Life?" 44 *California Management Review* 1 (Fall): 132-48.
- Jackson, Barbara Bund. 1985. *Winning and Keeping Industrial Customers: The Dynamics of Customer Relationships*. Lexington, Massachusetts: Lexington Books.
- Jap, Sandy D. 1999. "Pie-Expansion Efforts: Collaboration Processes in Buyer-Supplier Relationships." *Journal of Marketing Research* 36 (November): 461-475.
- Jap, Sandy D., and Shankar Ganesan. 2000. "Control Mechanism and the Relationship Life Cycle: Implications for Safeguarding Specific Investments and Developing Commitment." *Journal of Marketing Research* 37 (May): 227-45.
- John, George. 1994. "An Empirical Investigation of Some Antecedents of Opportunism in a Marketing Channel." *Journal of Marketing Research* 21 (August): 278-89.
- Johnson, Jean L., John B. Cullen, Tomoaki Sakano and Hideyuki Takenouchi. 1996. "Setting the Stage for Trust and Strategic Integration in Japanese-U.S. Cooperative Alliances." *Journal of International Business Studies*: 981-1004.

- Kale, Sudhir H., and John W. Barnes. 1992. "Understanding the Domain of Cross-National Buyer-Seller Interactions," 23 *Journal of International Business Studies* 1: 101.
- Kaufmann, Lutz, and Craig R. Carter. 2002. "International Supply Management Systems – The Impact of Price vs. Non-Price Driven Motives in the United States and Germany." *The Journal of Supply Chain Management* (Summer): 4-17.
- \_\_\_\_\_. (forthcoming). "International supply relationships and non-financial performance—A comparison of U.S. and German practices." *Journal of Operations Management*.
- Kogut, Bruce, and Harbir Singh. 1988. "The Effect of National Culture on the Choice of Entry Mode." *Journal of International Business Studies* (Fall): 411-32.
- Kozan, M. Kamil, and Canan Ergin. 1999. "Third Party Role in Conflict Management in Turkish Organizations." 58 *Human Organization* 4 (Fall): 405-15.
- Kumar, Nirmalya, Lisa K. Scheer, and Jan-Benedict E. M. Steenkamp. 1995. "The Effects of Perceived interdependence on Dealer Attitudes." *Journal of Marketing Research* 32 (August): 348-56.
- Kumar, Nirmalya, Louis W. Stern, and Ravi S. Achrol. 1992. "Assessing reseller Performance From the Perspective of the Supplier." *Journal of Marketing Research* 29 (May): 238-53.
- Lambe, C. Jay, C. Michael Wittman and Robert E. Spekman. 2001. "Social Exchange Theory and Research on Business-to-Business Relational Exchange." 8 *Journal of Business-to-Business Marketing* 3: 1-36.
- Lambert, D. M. and T. C. Harrington. 1990. "Measuring Nonresponse Bias in Customer Service Mail Surveys." 11 *Journal of Business Logistics* 2: 5-25.
- Lin, Xiaohua, and Richard Germain. 1998. "Sustaining Satisfactory Joint Venture Relationships: The Role of Conflict Resolution Strategy." 29 *Journal of International Business Studies* 1 (Quarter 1): 179-96.
- Lusch, Robert F., and James R. Brown. 1996. "Interdependency, Contracting, and Relational Behavior in Marketing Channels." *Journal of Marketing* 60 (October): 19-38.
- Lynch, John G. Jr. 1982. "On the External Validity of Experiments in Consumer Research." *Journal of Consumer Research* 9 (December): 225-39.

- Mayer, Roger C., James H. Davis, and F. David Schoorman. 1995. "An integrative model of organizational trust." 20 *Academy of Management Review* 3: 709-34.
- McAfee, R. Bruce, Myron Glassman and Earl Honeycutt, Jr. 2002. "The effects of culture and human resource management policies on supply chain management strategy." 23 *Journal of Business Logistics* 1: 1-18.
- Min, Hokey, and William P. Galle. 1991. "International Purchasing Strategies of Multinational U.S. Firms." *International Journal of Purchasing and Materials Management* (Summer): 9-18.
- Mohr, Jakki, and John R. Nevin. 1990. "Communications Strategies in Marketing Channels: A Theoretical Perspective." *Journal of Marketing* 54 (October): 36-51.
- Mohr, Jakki, Robert J. Fisher and John R. Nevin. 1996. "Collaborative Communication in Interfirm Relationships: Moderating Effects of Integration and Control." *Journal of Marketing* 60 (July): 103-15.
- Monczka, Robert M., and Larry C. Giunipero. 1984. "International Purchasing: Characteristics and Implementation." *Journal of Purchasing and Materials Management* (Fall): 2-9.
- Monczka, Robert M., and Robert J. Trent. 1992. "Worldwide Sourcing: Assessment and Execution." *International Journal of Purchasing and Materials Management* (Fall): 9-19.
- Money, R. Bruce, Mary C. Gilly and John Graham. 1998. "Explorations of National Culture and Word-of-Mouth Referral Behavior in the Purchase of Industrial Services in the United States and Japan." *Journal of Marketing* 62 (October): 76-87.
- Moore, Kevin R. 1998. "Trust and Relationship Commitment in Logistics Alliances: A Buyer Perspective." *International Journal of Purchasing and Materials Management* (Winter): 24-37.
- Moore, Kevin R., and William A. Cunningham III. 1999. "Social exchange behavior in logistics relationships: a shipper perspective." 29 *International Journal of Physical Distribution and Logistics Management* 2: 103-21.
- Moorman, Christine, Gerald Zaltman, and Rohit Deshpandé. 1992. "Relationships Between Providers and Users of Market Research: The Dynamics of Trust Within and Between Organizations." 29 *Journal of Marketing Research* (August): 314-28.

- Moorman, Christine, Gerald Zaltman, and Rohit Deshpandé. 1993. "Factors Affecting Trust in Market Research Relationships." *Journal of Marketing* 57 (January): 81-101.
- Morgan, Robert M., and Shelby D. Hunt. 1994. "The Commitment-Trust Theory of Relationship Marketing." *Journal of Marketing* 58 (July): 20-38.
- Murphy, Patrick E. 1999. "Character and Virtue Ethics in International Marketing: An Agenda for Managers, Researchers and Educators." *Journal of Business Ethics*: 107-124.
- Nicholson, Carolyn Y., Larry D. Compeau and Rajesh Sethi. 2001. "The Role of Interpersonal Liking in Building Trust in Long-Term Channel Relationships." *29 Journal of the Academy of Marketing Science* 1 (Winter): 3-15.
- Noordewier, Thomas G., George John and John R. Nevin. 1990. "Performance Outcomes of Purchasing Arrangements in Industrial Buyer-Supplier Relationships." *Journal of Marketing* 54 (October): 80-93.
- Nyaw, Mee-Kau, and Ignace Ng. 1994. "A comparative analysis of ethical beliefs: a four country study." *Journal of Business Ethics* 13: 543-55.
- Park, Seung Ho, and Gerardo R. Ungson. 1997. "The effect of national culture, organizational complementarity, and economic motivation on joint venture dissolution." *Academy of Management Journal* 40, 2 (April): 279-307.
- Parkhe, Arvind. 1991. "Interfirm diversity, organizational learning, and longevity in global strategic alliances." *Journal of International Business Studies* (Quarter 4): 579-601.
- \_\_\_\_\_. 1993. "Strategic alliance structuring: a game theoretic and transaction cost examination of interfirm cooperation." *36 Academy of Management Journal* 4: 794-829.
- Parsons, Amy L. 2002. "What Determines Buyer-Seller Relationship Quality? An Investigation from the Buyer's Perspective." *Journal of Supply Chain Management* (Spring): 4-12.
- Petersen, Kenneth J., David J. Frayer and Thomas V. Scannell. 2000. "An Empirical Investigation of Global Sourcing Strategy Effectiveness." *Journal of Supply Chain Management* (Spring): 29-38.
- Reichers, Arnon E. 1985. "A Review and Reconceptualization of Organizational Commitment." *10 Academy of Management Review* 3 (November): 465-76.

- Rindfleisch, Aric, and Jan B. Heide. 1997. "Transaction cost analysis: past, present, and future applications." *Journal of Marketing* 61 (October): 30-54.
- Ring, Peter Smith, and Andrew H. Van de Ven. 1992. "Structuring Cooperative Relationships Between Organizations." *Strategic Management Journal* 13: 483-98.
- \_\_\_\_\_. 1994. "Developmental processes of cooperative interorganizational relationships." *Academy of Management Review* 19: 90-118.
- Rousseau, Denise M., Sim B. Sitkin, Ronald S. Burt and Colin Camerer. 1998. "Not so different after all: a cross-discipline view of trust." *Academy of Management Review*: 393-404.
- Schermerhorn, John R. 1975. "Determinants of Interorganizational Cooperation." *Academy of Management Journal* 4 (December): 846-56.
- Schwartz, Shalom H. 1994. "Beyond individualism/collectivism: new dimensions of values." In Uichol Kim, Harry C. Triandis, Çiğdem Kâğıtçıbaşı, Sang-Chin Choi, and Gene Yoon (Eds.). *Individualism and Collectivism* (pp. 85-122). Thousand Oaks, CA: Sage Publications.
- Siguaw, Judy A., Penny M. Simpson and Thomas L. Baker. 1998. "Effects of Supplier Market Orientation on Distributor Market Orientation and the Channel Relationship: The Distributor Perspective." *Journal of Marketing* 62 (July): 99-111.
- Sirdeshmukh, Deepak, Jagdip Singh and Barry Sabol. 2002. "Consumer Trust, Value, and Loyalty in Relational Exchanges." *Journal of Marketing* 66 (January): 15-37.
- Sirgy, M. Joseph. 2002. "Measuring Corporate Performance by Building on the Stakeholders Model of Business Ethics." *Journal of Business Ethics* 35: 143-62.
- Skarmeas, Dionisis, Constantine S. Katsikeas, and Bodo S. Schlegelmilch. 2002. "Drivers of Commitment and its Impact on Performance in Cross-Cultural Buyer-Seller Relationships: The Importer's Perspective." *Journal of International Business Studies* 4 (Fourth Quarter): 757-83.
- Smith, J. Brock, and Donald W. Barclay. 1997. "The Effects of Organizational Differences and Trust on the Effectiveness of Selling Partner Relationships." *Journal of Marketing* 61 (January): 3-21.
- Søndergaard, Mikael. 1994. "Research Note: Hofstede's Consequences: A Study of Reviews, Citations, and Replications." *Organization Studies* 15: 447-456.

- Spekman, Robert E., and Edward W. Davis. 2004. "Risky business: expanding the discussion on risk and the extended enterprise." 34 *International Journal of Physical Distribution and Logistics Management* 5: 414-33.
- Stank, Theodore, Michael Crum, and Miren Arango. 1999. "Benefits of interfirm cooperation in food industry supply chains." 20 *Journal of Business Logistics* 2: 21-41.
- Steers, Richard M. 1977. "Antecedents and Outcomes of Organizational Commitment." *Administrative Science Quarterly* 22 (March): 46-56.
- Stump, Rodney L., and Jan B. Heide. 1996. "Controlling Supplier Opportunism in Industrial Relationships." *Journal of Marketing Research* 33 (November): 431-41.
- Tallman, Stephen B., and Oded Shenkar. 1994. "A managerial decision model of international cooperative venture formation." *Journal of International Business Studies* (Quarter 1): 91-113.
- Tate, Karen. 1996. "The elements of a successful logistics partnership." 26 *International Journal of Physical Distribution and Logistics Management* 3: 7.
- Thibaut, John W., and Harold H. Kelley. 1959. *The Social Psychology of Groups*. New Brunswick: Transaction Books.
- Thompson, Allan G. 1996. "Compliance with agreements in cross-cultural transactions: some analytical issues." *Journal of International Business Studies* (Quarter 2): 375-90.
- Triandis, H. C., K. Leung, M. Villareal, and F. L. Clack. 1985. "Allocentric vs. idiocentric tendencies: Convergent and discriminant validation." *Journal of Research in Personality* 19: 395-415.
- Tse, David K., Kam-hon Lee, Ilan Vertinsky and Donald A. Wehrung. 1988. "Does Culture Matter? A Cross-Cultural Study of Executives' Choice, Decisiveness, and Risk Adjustment in International Marketing." *Journal of Marketing* 52 (October): 81-95.
- Ueno, Susumu, and Uma Sekaran. 1992. "The influence of culture on budget control practices in the USA and Japan: An empirical study." 23 *Journal of International Business Studies* 4 (Fourth Quarter): 659-75.

- Van de Ven, Andrew H. 1976. "On the Nature, Formation, and Maintenance of Relations Among Organizations." *Academy of Management Review* (October): 24-36.
- Wathne, Kenneth H., and Jan B. Heide. 2000. "Opportunism in Interfirm Relationships: Forms, Outcomes, and Solutions." *Journal of Marketing* 64 (October): 36-51.
- Weaver, Gary R. 2001. "Ethics Programs in Global Businesses: Culture's Role in Managing Ethics." *Journal of Business Ethics* 30: 3-15.
- Williamson, Oliver. 1975. *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: The Free Press.
- \_\_\_\_\_. 1985. *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. New York: The Free Press.
- Wilson, David T. 1995. "An Integrated Model of Buyer-Seller Relationships." 23 *Journal of the Academy of Marketing Science* 4 (Fall): 335-45.
- Wines, William A., and Nancy K. Napier. 1992. "Toward an Understanding of Cross-Cultural Ethics: A Tentative Model." *Journal of Business Ethics* 11: 831-41.
- Wong, Y. H., and Ricky Yee-kwong Chan. 1999. "Relationship Marketing in China: Guanxi, Favouritism and Adaptation." *Journal of Business Ethics* 22: 107-18.
- Wood, John A., Justin G. Longenecker, Joseph A. McKinney, and Carlos W. Moore. 1988. "Ethical attitudes of students and business professionals: a study of moral reasoning." *Journal of Business Ethics* 7: 249-57.
- Zaheer, Akbar, Bill McEvily and Vincenzo Perrone. 1998. "The Strategic Value of Buyer-Seller Relationships." *International Journal of Purchasing and Materials Management* (Summer): 20-26.